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I N D E X

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JAMES B. FISK	1101	1106	1094	1098
FREDERICK OSBORN	1108	1120	1121	

PAPICH  
BOWND

UNITED STATES ATOMIC ENERGY COMMISSION

PERSONNEL SECURITY BOARD

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 In the Matter of :  
 :  
 J. ROBERT OPPENHEIMER :  
 :  
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Room 2022,  
 Atomic Energy Commission,  
 Building T-3,  
 Washington, D. C.  
 Monday, April 19, 1954.

The above entitled matter came on for hearing,  
 pursuant to recess, before the Board, at 9:30 a.m.

PERSONNEL SECURITY BOARD:

MR. GORDON GRAY, Chairman.  
 DR. WARD T. EVANS, Member.  
 MR. THOMAS A. MORGAN, Member.

PRESENT:

ROGER ROBB, and  
 C. A. ROLANDER, JR., Counsel for the Board.

J. ROBERT OPPENHEIMER.  
 LLOYD K. GARRISON,  
 SAMUEL J. SILVERMAN, and  
 ALLEN B. ECKER, Counsel for J. Robert Oppenheimer.  
 HERBERT S. MARKS, Co-Counsel for J. Robert Oppenheimer.

P R O C E E D I N G S

MR. GRAY: We will start the proceedings.

I should like the record to reflect that Mr. Morgan, who, as you all recall, found it necessary to leave the proceedings before we completed our work on Friday, has read carefully the transcript made of the proceedings, especially that portion which took place in his absence, and is thoroughly familiar with what transpired. Is that correct?

MR. MORGAN: That is correct.

MR. GRAY: I think the record ought to show that.

Now, Mr. Robb.

MR. ROBB: Yes, Mr. Chairman.

Mr. Rathman is here and will play these records for us. Counsel for Dr. Oppenheimer have been furnished with two copies of the transcript to follow. I would suggest that in the event that anyone at any time wishes any portion of the recording played again, so that we may check it, if you will just so indicate, we will do that. Of course, that includes the reporter. I understand it is most difficult for a reporter to take this down on a machine. So if the reporter wishes to stop and having something played over again, that will be done. Of course, Mr. Garrison, anything that he wishes to be played over if he will just indicate it will be done.

MR. GARRISON: Suppose we find, Mr. Chairman, as

we listen to this, what seems to us to be variances between sound and text. Should we make a note of those as we go along?

MR. GRAY: I think that would be the proper procedure.

MR. ROBB: I think that would be the only way to do it, Mr. Garrison.

Mr. Rathman, would you begin to play the records?

I might say, gentlemen, for your benefit, to assist you, at the beginning of this record you will hear some door slamming and seat creaking and so on, and some introductory gabble, which is not important here. I suppose people are coming into the room and sitting down. The transcript, which begins, "This is a pleasure", does not begin for perhaps 30 seconds.

MR. GARRISON: Mr. Chairman, could we have read into the record the first paragraph of the transcript that will not appear in the sound?

MR. ROBB: Do you wish me to do that, Mr. Chairman?

MR. GRAY: If you would.

MR. ROBB: "San Francisco, California, August 27, 1943.

"Memorandum for the Officer in Charge.

"Subject: D. S. M. Project.

"Re: Transcription of Conversation between Dr. J. R. Oppenheimer, Lt. Col. Boris T. Pash, and Lt. Lyall Johnson.

"Transmitted, herewith, is the transcript of conversation between Dr. J. R. Oppenheimer, Lt. Col. Boris T. Pash, and Lt. Lyall Johnson held in Lt. Johnson's office in the New Class Room Building, University of California, Berkeley, California, on August 26, 1943. It is to be noted that in some places the conversation was very indistinct and that the running commentary may be indecisive in these places, but the substance of the material discussed is, herewith, presented:

"Pash: This is a pleasure, because I am interested to a certain extent in activities and I feel I have a certain responsibility in a child which I don't know anything about. General Grove has, more or less, I feel placed a certain responsibility in me and it's like having a child, that you can't see, by remote control. I don't mean to take much of your time --

"Oppenheimer: That's perfectly all right. Whatever time you choose.

"Pash: Mr. Johnson told me about the little incident, or conversation, taking place yesterday in which I am very much interested and it had me worried all day yesterday since he called me up. I thought if he could --

"Oppenheimer: I was rather uncertain as to whether I should or should not talk to him. I am unwilling to do it without authorization. What I wanted to tell this

fellow was that he had been indiscreet. I know that he had revealed information. I know that saying that might in some cases embarrass him. It doesn't seem to have been capable of embarrassing him, to put it bluntly.

"Pash: That is not the particular interest I have. It is something a little more, in my opinion, more serious. Mr. Johnson said that there was a possibility that there may be some other groups interested.

"Oppenheimer: I think that is true, but I have no first hand knowledge and that would not be, for that reason, very useful to me. I think it is true that a man whose name I never heard who was attached to the Soviet consul has indicated indirectly through intermediaries people concerned in this project, that he was in a position to transmit, without any danger of a leak or anything of that kind, or a scandal, information which they might supply."

DR. EVANS: That is one correction that you passed over. That "intermediary" and not "intermediaries".

MR. ROBB: And that is true, instead of that.

(Discussion off the record.)

MR. GARRISON: The only comment I would make, Mr. Chairman, is that in quite a number of places, I think I marked one, two, three, four, five, six, there were scraps of talk that were not recorded here because of the speed. Also here a word and there a word was either dropped out in the speed of

the transcription or the order was sometimes inverted a little bit. I am not saying that this alters the substance, but I do think that if there comes a passage --

MR. ROBB: That is true. Mr. Chairman, I think this suggestion is a very excellent one. I am sure if there is any matter of substance which counsel finds of recording which he feels is different from the transcript, I trust he will indicate, that we may play the record again, and also that we will agree on it. Will you do that, Mr. Garrison?

MR. GARRISON: I want to make it clear that we are not attempting, and we can't on one playing, to authenticate the entire record.

MR. ROBB: Very good. Shall we go ahead, Mr. Garrison?

(Mr. Rathmen resumed playing back the recording.)

"Oppenheimer: Since I know it to be a fact --"

MR. GARRISON: There seem to be some words in the conversation which do not appear in the transcript immediately prior to the sentence reading, "Since I know it to be a fact." This conversation apparently dealing in some way with the Soviet consulate.

(Recording)

"Since I know it to be a fact, I have been particularly concerned --"

MR. GRAY: I think what was said there is that

Dr. Oppenheimer is saying it might be assumed that a man attached to the Soviet Consul might be doing this. "But since I know it to be a fact, I have been particularly concerned." That is my interpretation.

MR. GARRISON: It is something like that, Mr. Chairman. I was not exactly clear. We might have it once more, if you don't mind.

(Recording.)

"I will take it assumed that a man attached to the Soviet consul might be doing this. But since I know it to be a fact I have been particularly concerned about any indiscretions which took place in circles close which might be in contact with it. To put it quite frankly, I would feel friendly to the idea of the Commander in Chief informing the Russians who are working on this problem."

MR. MARKS: May we stop at this point?

MR. GARRISON: Mr. Chairman, I think it quite clear from the recording that the sentence read, "I would feel friendly to the idea of the Commander in Chief informing the Russians that we are working on this problem."

MR. GRAY: I would have to ask that it be played again.

(Recording.)

"I will take it to be assumed that a man attached to the Soviet consul might be doing this, but since I know

it to be a fact, I have been particularly concerned about any indiscretions which took place in circles close to the consul or which might come in contact with it. To put it quite frankly, I would feel friendly to the idea of the Commander in Chief informing the Russians that we were working on this problem. At least I can see that there might be some arguments for doing that, but I do not feel friendly to the idea of having that -- I think that it might not hurt to be on the lookout for it."

MR. GARRISON: May we stop at that point. Is the Chairman satisfied that the phrase was "informing the Russians that we were working on this problem"?

MR. ROBB: That is the way I heard it.

MR. GRAY: It is not clear to me, but I think it is clear that the word simply was not "who". Precisely what the word or words might have been, I am not sure, but my inclination is to feel that it is as you suggest.

MR. GARRISON: Counsel would agree?

MR. ROBB: That was my understanding of it, Mr. Garrison.

MR. GARRISON: That it did read "informing the Russians that we were working".

MR. ROBB: I think it is.

MR. GARRISON: Either one, it doesn't matter, Mr. Chairman. I would point out that in the cross examination

of Dr. Oppenheimer, this particular phrase was picked out of the transcript about informing the Russians, as it reads here, "who are working on this problem", as if there were something sinister about it. It came as a great surprise to Dr. Oppenheimer, and I think the record now should explicitly show that this was an error in transcription and that any notion that the Russians were then working on this problem was simply not suggested in this conversation.

MR. ROBB: I wouldn't go so far as that, sir. I think the record shows that the recording says. I think that is as far as we can go.

MR. GRAY: I think there is agreement between counsel as to what seems to be the correct transcript now on this point. Certainly speaking for the Board, I don't think we can draw any conclusions into the record at this point, Mr. Garrison. I think the record ought to be clear as to what the language was.

MR. GARRISON: I want to make clear that any inference drawn from the previous cross examination is now to be wiped out.

MR. GRAY: I should think that you would wish -- on redirect, if I can use that term -- to come back to this point. Certainly the record now will reflect what the consensus is as to this language. I am just hesitant to accept an interpretation of counsel as a part of a Board conclusion

at this time. What we are doing is correcting the record as I understand it. You are certainly free to come back to this.

MR. ROBB: Will you start at the beginning?

(Recording.)

"Oppenheimer: I probably know this. I will take it is to be assumed that a man attached to the Soviet consulate might be doing this, but since I know it to be a fact, I have been particularly concerned."

MR. ROBB: Mr. Chairman, might I interpose at this point. I think it is pretty clear now, Mr. Garrison, that the beginning of that sentence is, "I would take it that it would be assumed that a man attached to the Soviet consulate might be doing this, but since I know it to be a fact"; isn't that the way you heard it?

MR. GARRISON: That is about the way I heard it.

MR. ROBB: Did you hear it any differently than that?

MR. GARRISON: I think that is about correct.

MR. GRAY: While we are in this interruption, my interpretation of the recording is that the word "aides" should have been "circles".

MR. GARRISON: Yes, Mr. Chairman.

MR. ROBB: I had already corrected that in my transcript.

MR. GRAY: Would you proceed, Mr. Rathman.

(Recording.)

"I would take it that it is to be assumed that a man attached to the Soviet consulate might be doing it, but since I know it to be a fact, I have been particularly concerned about any indiscretion which took place in circles close enough to come in contact with it. To put it quite frankly, I would feel friendly to the idea of the Commander in Chief informing the Russians that we were working on this problem. At least I can see that there might be some arguments for doing that, but I do not feel friendly to the idea of having it moved out the back door. I think that it might not hurt to be on the lookout for it.

"Pash: Could you give me a little more specific information as to exactly what information you have? I mean, you can readily realize that phase would be, to me, probably of interest as pretty near the whole project is to you.

"Oppenheimer: Well, I might say that the approaches were always through other people, who were troubled by them, and sometimes came and discussed them with me; and that the approaches were always quite indirect so that I would feel that to give -- well, to give more, perhaps, than one name, would be to implicate people whose attitude was one of bewilderment, rather than one of cooperation. I know of no

case, and I am fairly sure that in all cases where I heard of it, these contacts would not have yielded a single thing. That is as far as I can go on that.

"Now, there is a man whose name was mentioned here a couple of times. I do not know of my own knowledge he is involved as an intermediary. It seems, however, not impossible, and if you wanted to watch him, it might be the appropriate thing to do. He spent a number of years in the Soviet Union. I think he is a chemical engineer. He was -- he may not be here -- he was at the time I was with him here employed at the Shell Development. His name is Eltenton. I would think that there was a small chance that -- well, let me put it this way -- I think he has probably been asked to do what he can to provide information. Whether he is successful or not, I don't know. But if he talked to a friend of his who was also an acquaintance of one of the men on the approach, that was one of the channels by which this thing went on. Now, I think that --"

"-- asked to do what he could to provide information. Whether he was successful or not I couldn't know. But he talked to a friend of his who was also an acquaintance of one of the men on the project, and that was one of the channels by which this thing went. Now, I think that to go beyond that would be to put a lot of names down of people who are not only innocent, but whose attitude is

100 per cent effective.

"Pash. Now, here's a point. You can readily realize that if we get information like that we have to work in a n absolutely discreet manner. In other words, we can't afford to indicate --

"Oppenheimer. That you are concerned.

"Pash. That we are concerned or through whom we get information.

"Oppenheimer: Naturally.

"Pash: However, any --"

(End of recording.)

MR. GRAY: I should like to record my observation about some of these words here.

MR. ROBB: Yes, sir.

MR. GRAY: First of all, it is pretty clear to me going back to this earlier paragraph that the language should be "informing the Russians that we were working on this project."

MR. ROBB: That is correct.

MR. GRAY: Then in the third paragraph, I believe in the first sentence, it should read, "Well, I might say that the approaches were always to other people" rather than "through other people".

MR. ROBB: I would like to have that played back.

MR. GRAY: Will you play the beginning of this again,

please?

MR. GARRISON: Mr. Chairman, so that we do this in the same order, I listened to those words that were in the middle of the sentence beginning, "At least I can see that there might be some arguments for doing", I then heard these words, "I don't know whether it could or could not be done, but I don't like the idea of having them moved out the back door."

MR. ROBB: I don't know. There are some words in there that I didn't get. Let us see, and we will play it again. I hope these records don't get worn out while we are playing them.

MR. GARRISON: I hope we don't have to play the whole thing through just for this one thing.

MR. ROBB: No, that is right at the beginning.

(Recording)

"It must be assumed that a man attached to the Soviet consulate might be doing this, but since I know it to be a fact, I have been particularly concerned about any indiscretions which took place in circles close to the consul or which might come in contact with it, because to put it quite frankly, I would feel friendly to the idea of the Commander in Chief informing the Russians that we were working on this problem. At least, I can see that there might be some argument for doing that. I don't know whether

it could or not have been done, but I don't like the idea of having it moved out the back door. I think that it might not hurt to be on the lookout for it."

"Pash. Could you give me a little more specific information as to exactly what information you have? I mean, you can readily realize that phase would be, to me, probably as interesting as pretty near the whole project is to you.

"Opperheimer: Well, I might say that the approaches were always to other people, who were troubled by them, and sometimes came and discussed them with me."

MR. ROBB: Mr. Chairman, it is quite plain that the sentence reads, "I might say that the approaches were always to other people", is that correct, Mr. Garrison?

MR. GARRISON: Yes.

MR. GRAY: Then a few minor ones.

MR. ROBB: May I say with Mr. Garrison's help I do find the phrase "I don't know whether it could or could not be done, but" comes in.

MR. GRAY: "I am not friendly to the idea of having it move out the back door."

MR. ROBB: That is right.

MR. GRAY: Further in that third paragraph, I think that the third sentence would read, or portions of it, "and that the approaches were always quite indirect." The word "always."

MR. GARRISON: Yes, Mr. Chairman.

MR. GRAY: In the fifth line, very minor, the word "attitudes" should be "attitude", singular.

MR. ROBB: Yes.

MR. GRAY: Down about the middle of that paragraph, "He spent quite a number of years in the Soviet Union."

MR. GARRISON: I also heard the words "He is an Englishman" in there.

MR. ROBB: That is in here. Isn't it?

MR. GARRISON: No, "He spent" -- I have interlineated "He is an Englishman" or "He is English".

MR. ROBB: I think that is in there some place, but that is not very important.

MR. GARRISON: No.

MR. GRAY: There are a couple of other places. The word "is" should have been "was" and "the project" should be "this project."

MR. GARRISON: The sentence reading, "I think there is a small chance", I think the "is" there, that the word was "was". That is after the word "Eltentoa". "His name is Eltenton". "I would think there was a small chance."

MR. GRAY: That is correct.

MR. ROBB: Mr. Chairman, may I ask Mr. Garrison, is there any question that the voice we hear in the paragraphs marked "O" is Dr. Oppenheimer?

MR. GARRISON: Not so far.

MR. GRAY: Are we ready to proceed? While he is fixing that record, a very minor one, I think Colonel Pash said "absolute discreet manner" rather than "absolutely".

MR. GARRISON: I am not bothered with that type of correction, Mr. Chairman.

(Recording)

"That we might get which would eliminate a lot of research work on our part would necessarily lead to the conclusion anything we are doing.

"Oppenheimer: I am giving you the one name I think -- I mean I don't know the man attached to the consulate. I think I may have been told or I may not have been told. But I have actually forgotten. He is -- and he may not be here now. These incidents occurred in the order of about five, six or seven months.

"Johnson: I was wondering, Dr. Oppenheimer, if there was a particular person, maybe a person on the project that you were trying to pump information from -- that if we knew who those were, would at least know where to look for a lead, not from the standpoint of fellow hate, but looking at a certain picture.

"Pash. Here is the point that I would feel --

"Oppenheimer: I would feel that the people that tried to get information from were more or less an accident

and I would be making some harm by saying that.

"Pash. Yes. Here's the thing. We of course assume that the people who bring this information to you are 100 per cent with you, and therefore, there is no question about their intentions. However, if --

"Oppenheimer: Well, I will tell you one thing --"

(End of recording.)

MR. EVANS: Was that word "lead" or "leak".

MR. GARRISON: I thought it was "leak".

DR. EVANS: It is "lead" here.

MR. GARRISON: Yes. It sounded like "leak" to me.

DR. EVANS: It sounded like "leak" to me. "I was wondering, Dr. Oppenheimer, if there is a particular person -- maybe a person on the project that you were trying to pump information from -- that if we knew who those were, would at least know where to look for a leak" --

MR. ROBB: Play that again, please.

(Recording)

"These events occurred of the order of five, six, or seven months ago.

"Johnson: I was wondering, Dr. Oppenheimer, if there is a particular person, -- maybe a person on the project that you were trying to pump information from, -- that if we knew who those were, would at least know where to look for a leak, not from the standpoint of fellow hate,

but looking at a certain picture.

"Pash. Here's the point that I would feel --

"Oppenheimer. I would feel that the people that if they tried to get information were more or less an accident and I believe I would be making some harm by saying that.

"Pash: Yes. Here's the thing -- we of course assume that the people who bring this information to you are 100 per cent with you, and therefore, there is no question about their intentions. However, if --

"Oppenheimer: Well, I will tell you one thing. I have known two or three cases, and I think two of them are the men with me at Los Alamos. They are men who are very closely associated with me.

"Pash: Have they told you that either they thought they were contacted for that purpose or they actually were contacted for that purpose?

"Oppenheimer: They told me that they were contacted.

"Pash. For that purpose.

"Oppenheimer: That is, let me give you the background. The background was -- well, you know how difficult it is with the relations between these two allies, and there are a lot of people who don't feel very friendly toward Russia, so that the information -- a lot of our secret information, our radar and so on, doesn't get to them,

and they are battling for their lives and they would like to have an idea of what is going on. This is just to make up in other words for the defects of our official communication. That is the form in which it was.

"Pash: Oh, I see.

"Oppenheimer: Of course, the actual fact is that it is not a communication that ought to be taking place. But it is a matter of carrying out a policy which was more or less a policy of the government and the form in which it came as that could an interview be arranged with this man Eltenton who had very good contact with a man from the Embassy attached to the consulate who was a very reliable guy. That is his story. And who had a lot of experience in microfilm work.

"Pash. Well, now, I may be getting back to a systematic picture here. But do you mind? These people whom you mentioned, two are down with you now. Were they contacted by Eltenton direct?

"Oppenheimer: No.

"Pash: Through another party?

"Oppenheimer: Yes.

"Pash: Well, now, could we know through whom that contact was made?

"Oppenheimer: I think it would be a mistake" --

MR. GARRISON: Mr. Chairman, could we stop?

MR. ROBB: I have several corrections, Mr. Chairman.

MR. GRAY: Very well.

MR. ROBB: In the first paragraph on that page, Mr. Garrison, we pretty well agreed on, and the second.

MR. GARRISON: Except I would just like to note the phrase "not from the standpoint of fellow hate", that there were quite indistinguishable words that accompanied that. I don't know what the words were.

MR. GRAY: I would question myself that the words were "fellow hate".

MR. ROBB: I don't know.

MR. GARRISON: There were other words not in there.

MR. ROBB: I might say that the "J" indicated there is Lt. Johnson who was also present. In the third line on that page of the transcript, as I heard it, it is, "These instances occurred of the order of about five, six or seven months ago," is that correct?

MR. GARRISON: That is right.

MR. ROBB: As I heard it in the paragraph marked "H", the word "lead" should be "leak". The words "fellow hate" I don't pick that up.

The next paragraph marked "O", as I heard it, read "I would feel that the people that they tried to get information from." Did you get that, Mr. Garrison?

MR. GARRISON: Yes.

MR. GRAY: I think that was clear.

MR. ROBB: The next paragraph marked "O".

MR. GARRISON: While we were on that paragraph, after the words "accident", there were some words interpolated by Mr. Pash that did not come through on the transcript.

MR. ROBB: Yes, that is correct. The next paragraph marked "O", as I got it, reads, "Well, I will tell you one thing. I have known of two or three cases, and I think two of the men were with me at Los Alamos." Did you get that?

MR. GARRISON: Yes.

MR. ROBB: "They are men who are very closely associated with me."

MR. GARRISON: Correct.

MR. ROBB: Then the next large paragraph marked "O", reads as I got it in the third and fourth lines, "There are a lot of people that don't feel very friendly to Russia" instead of "toward the Russians". Did you get that?

MR. GARRISON: I did.

MR. GRAY: It is "a lot of people who don't feel very friendly".

MR. ROBB: Yes, sir.

MR. GARRISON: That is right.

MR. ROBB: In the last paragraph on that page, as I got it, it reads, "Of course, the actual fact is that since it is not a communication which ought to be taking place,

it is treasonable, but it was not presented in that method."

MR. GARRISON: Right After that word "method" I had some words --

MR. ROBB: That didn't come through. Yes, sir. "It is a method of carrying out a policy which was more or less a policy of the government and the form in which it came was that an interview be arranged with this man Eltenton who had very good contacts with a man from the Embassy attached to the consulate who was a very reliable guy, and who had a lot of experience in microfilm work or whatever."

MR. GARRISON: That "or whatever", I would like to have it played again. I think there was another word or two after the word "whatever".

MR. ROBB: I think so, but I didn't get it. "In microfilm work" and also after the word given there were two or three words that I didn't get.

(Recording)

"a policy which was more or less a policy of the government, and the form in which it came was that could an interview be arranged with this man Eltenton, who had very good contacts with a man from the Embassy, attached to the consulate, who was a very reliable guy, that is his story, and who had a lot of experience in microfilm work, or whatever.

"Pash. I may be getting back to a little systematic

picture" --

MR. ROBB: Will you stop there? Mr. Garrison, I don't know whether you got it the way I did, but I thought I heard "who was a very reliable guy", a kind of parenthetical story, "That is his story."

MR. GARRISON: Yes.

DR. OPPENHEIMER: After "whatever" it said "the hell".

MR. ROBB: Thank you.

MR. GARRISON: "a lot of experience in microfilm work, or whatever the hell."

MR. ROBB: Dr. Oppenheimer is certainly the best expert on his own voice.

MR. GRAY: In the next paragraph when he plays that, I think the word "two" right in the middle, on the top of page 4, "two are down there" should be "who". Will you play that again?

(Recording)

"Pash. Well, now I may be getting back to a little systematic picture, but do you mind. These people whom you mentioned, who were down there with you now, were they contacted by Eltenton?

"Oppenheimer: No.

"Pash: Through another party?

"Oppenheimer: Yes.

"Pash. Well, now, could we know through whom that

contact was made?

"Oppenheimer: I think it would be a mistake" --

MR. ROBB: I still got a "two".

MR. GARRISON: I thought it was "who."

DR. EVANS: I thought it was "who".

(Recording)

"Pash: These people whom you mentioned, who were down with you now, were they contacted by Eltenton direct?

"Oppenheimer: No,

"Pash: Through another party?

"Oppenheimer: Yes.

"Pash. Well, now, could we know through whom that contact was made?

"Oppenheimer: I think it would be a mistake" --

MR. ROBB: I don't know.

DR. EVANS: I would like to know how many of us thought it was "who" and how many thought it was "two". I thought personally it was "who".

MR. GRAY: Let us make this the last time.

(Recording)

"I may be getting back to a little systematic picture here, but do you mind? These people who you mentioned, two are down there with you now, were they contacted by Eltenton direct?

"Oppenheimer: No.

"Pash. Through another party?

"Oppenheimer: Yes.

"Pash. Well, now, could we know through whom that contact was made?

"I think it would be a mistake" --

MR. GRAY: Mr. Morgan thinks it is "two" and I could flip a coin.

MR. ROBB: I don't know that it is terribly important.

MR. GARRISON: I don't know, Mr. Chairman.

MR. ROBB: Why don't we put "who?" and "two?" in the transcript. Is that all right, Mr. Garrison?

MR. GARRISON: It is all right with me. I would note also there are some words after systematic picture indicated by the dots that don't appear.

MR. ROBB: That is something like, "getting back to a little systematic picture, if you don't mind".

MR. GARRISON: Something like that. I would observe that those are the first dots we have seen in this transcript although we have all agreed that there are some words and passages that don't appear in quite a number of places.

MR. ROBB: All right.

(Recording)

"I think I have told you where the initiative came from and that the other things are almost purely accidental,

and it would involve people who ought not to be involved in this.

"Pash: Yes. Well, this would not involve the people but it indicates to us Eltenton's channel. We would have to know that this is definite on Eltenton, and we of course naturally ---

"Oppenheimer: It is not definite in the sense that I have seen him do the thing.

"Pash. No.

"Oppenheimer: He may have been misquoted.

"Pash. That is right.

"Oppenheimer: I don't believe so. Now, Eltenton is a member of the FAECT. Whether or not --

"Pash: That is the union?

"Oppenheimer: That is the CIO. He is a man whose sympathies are certainly very far left, whatever his affiliations, and he may or may not have regular contacts with a political group. I doubt it. In any case, it is a safe thing to say that the channels that would be followed in this case are those involving people who have generally been sympathetic to the Soviet and somehow connected peripherally with the Communist movement in this country. That's obvious. I don't need to tell you that.

"Pash. Yes. The fact is this second contact -- the contact that Eltenton had to make with these other people

is that person also a member of the Project?

"Oppenheimer: No.

"Pash. That also is an outsider?

"Oppenheimer: It's a member of the faculty, but not of the project.

"Pash. A member of the faculty here? Eltenton made it through a member of the faculty to the project.

"Oppenheimer: As far as I know, these approaches were -- there may have been more than one person involved. I don't know.

"Pash: Here's how I feel about this leftist inclination. I think that whether a man has 'left' or 'right' inclinations, it is his character which is back of it -- if he is willing to do this, it doesn't make any difference what his inclinations are. It is based on his character primarily and not --

"Oppenheimer: Yes. A thing like this going on, let us say, with the Nazis would have a somewhat different color. I don't mean to say it would be any more deserving of attention or any more dangerous, but it would involve probably different motives.

"Pash: Yes.

"Oppenheimer: I'm pretty sure that none of the guys here with the possible exception of the Russian, who is doing probably his duty by his country -- but the other guys

that were just -- they didn't do anything, but they were considering the step which they would have regarded as thoroughly in line with the policy of this government, and just making up for the fact that there were a couple of guys in the State Department who would block such communications. You may or may not know that in many projects we share information with the British and some we do not, and there was a great deal of feeling about that and I don't think that the issues involved here seem to people very different except that of course the people on the project realize the importance and the whole procedure gets away from them.

"Pash: Now, do you feel"--

(End of the recording.)

MR. ROBB: I noticed a few minor corrections, but none I think that is worth talking about, unless Mr. Garrison has some.

MR. GRAY: I have one that may be minor, but perhaps it should be noted. In the paragraph that the CIO union, in the fourth line, I believe that the language was "a safe thing to say that the channels that would be followed in this case" instead of "to be followed". Did you get that?

MR. ROBB: I didn't get that. Did Mr. Garrison get that?

MR. GARRISON: No. Mr. Marks said he did. We accept that. Could I in the same paragraph note that after

the words "I doubt it" by Mr. Oppenheimer, I heard an interjection by Mr. Pash, saying, "Here is the way I feel about this case", and then it carries on with Mr. Oppenheimer saying, "It is a safe thing to say."

MR. ROBB: I think that is true.

MR. GARRISON: I mention that because here is the word "case" which is put in Dr. Oppenheimer's mouth which in fact came from Mr. Pash. I don't think it alters the substance.

MR. ROBB: I think Dr. Oppenheimer did use the word "case". It appeared that Colonel Pash, interrupting Dr. Oppenheimer and Dr. Oppenheimer keeping on talking, I heard Dr. Oppenheimer's voice saying, "In any case", although I don't know that it is important.

MR. GARRISON: You heard the word "case" twice.

MR. ROBB: Yes.

MR. GARRISON: You heard the word "case" again?

MR. ROBB: I thought I did, yes. Do you want to play it over again?

(Recording)

"He may have been misquoted.

"Pash: That is right.

"Oppenheimer: I don't believe so. Now Eltenton is a member of the FAECT. Whether or not --

"Pash: That is the union --

"Oppenheimer: That is the CIO union. He is a man whose sympathies are certainly very far left, whatever his affiliation is, and he may or may not have regular contacts with a political group. I doubt it.

"Pash: Here is the way I see.

"Oppenheimer: In any case, it is a safe thing to say that the channels that will be followed in this case are those involving people who have generally been sympathetic to the Soviet --"

MR. ROBB: I don't know who said it, Mr. Garrison.

MR. GRAY: It is my impression that there was an interruption by Colonel Pash, and Dr. Oppenheimer did say "In any case, it is a safe thing". I don't know that it is important.

MR. ROBB: I don't think it is important.

MR. GRAY: I do think there are two things I should point up in the fifth paragraph, about the middle of that paragraph, where I believe Dr. Oppenheimer said, "might block such communications" rather than "would".

MR. ROBB: Yes, I heard that, too.

MR. GARRISON: Yes, Mr. Chairman.

MR. GRAY: In the last line of that paragraph, I don't think the words "gets away from them" are correct.

The word "gets" is not correctly transcribed, but I can't tell what it was.

MR. GARRISON: That whole last line to me is rather indistinct. There were some words that don't appear and I don't quite get the sense of it.

MR. ROBB: I don't either, Mr. Garrison, but I don't think it is terribly important.

MR. GARRISON: Mr. Chairman, I would just make this suggestion perhaps in view of the time pressure under which we are all laboring. Possibly the Chairman in order to save the time of the Board would think it appropriate that we might make an arrangement with counsel on the other side to continue this playing at some time that would not take up the time of the Board, and bring to the Board and read into the record any changes that we agree upon. I think we probably would have no difficulty in doing that. I don't press that.

MR. ROBB: That might be possible, unless the Board wishes to participate in this.

MR. GRAY: I am sorry to engage in a time consuming procedure, Mr. Garrison, but I am inclined to think that if there are to be any changes in the record, the Board regrettably must hear them. I am sorry about the delay involved.

(Recording)

"Pash: Do you feel that would affect -- and there could be continued attempts now to establish this type of

contact?

"Oppenheimer: I haven't any idea.

"Pash. You haven't any idea?

"Oppenheimer: As I say, if the guy that was here may by now be in some other town and all that I would have in mind is this. I understood that this man to whom I feel a sense of responsibility, Lomanitz, and I feel it for two reasons. One, he is doing work which he started and which he ought to continue, and second, since I more or less made a stir about it when the question came up, that this man <sup>indiscreet</sup> may have been/in circles which would lead to trouble. That is the only thing that I have to say. I don't have any doubt that people often approached him, with whom he has contacted, I mean whom he sees, might feel it their duty if they got word of something, to let it go further and that is the reason why I feel quite strongly that association with the Communist movement is not compatible with the job on a secret war project, it is just that the two loyalties cannot go.

"Pash: Yes. Well --

"Oppenheimer: That is not an expression of political opinion. I think that a lot of very brilliant and thoughtful people have seen something in the Communist movement, and that they maybe belong there, maybe it is a good thing for the country. They hope that it doesn't belong on

the war project.

"Pash: I get your point. I don't want to seem to you insistent. I want to again I think explore the possibility of getting the name of the person on the faculty. I will tell you for what reason. Not for the purpose of taking him to task in any way whether it is unofficially, officially, or openly or what, but to try to see Eltenton's method of approach. You may not agree with me, but I can assure you that that is one of the more important steps.

"Oppenheimer: I have to take the following points of view: I think in mentioning Eltenton's name I subsequently said about the man that I think that he may be acting in a way which is dangerous to this country, and which should be watched. I am not going to mention the name of anyone in the same breath, even if you say that you will make a distinction. I just can't do that, because in the other cases, I am convinced from the way in which they handled the thing that they themselves thought it was a bad business.

"Pash: These other people, yes, I realize. But here is the point, Doctor; if that man is trying to make other contacts for Eltenton.

"Oppenheimer: Yes.

"Pash. You see, it would take us some time to try to --

"Oppenheimer: My honest opinion is that he probably

isn't, that he ran into him at a party and they saw each other or something and Eltenton said, "Do you suppose you could help me. This is a very serious thing, because we know that important work is going on here, and we think this ought to be available to our allies, and would you see if any of those guys are willing to help us with it, and then it wouldn't have to be so much." (Inaudible.)

DR. EVANS: There was one place there, "not for the purpose of taking him to task in any way, whether it be unofficially, officially or openly,"

MR. GARRISON: Yes.

MR. ROBB: I think one of the more important steps Colonel Pash said, one of the most important steps. Did you get that?

MR. GARRISON: I didn't have it.

MR. SILVERMAN: Yes.

MR. ROBB: There was an overriding remark of Dr. Oppenheimer in which he said, "I understand that." Did you gentlemen catch that?

MR. GARRISON: Yes.

MR. MARKS: Yes. The word "subsequently" I understood as "essentially."

MR. GARRISON: Yes. "Subsequently" should read "essentially" in the next paragraph. "I think in mentioning Eltenton's name I essentially said about the man".

MR. ROBB: I didn't get that.

MR. GARRISON: In the paragraph at the top where he said that is not an expression of political opinion, I think a lot of very brilliant and thoughtful people have seen something in the Communist movement, and that they maybe belong there, and that maybe it is a good thing for the country.

MR. ROBB: I think so. I thought I heard instead of "they hope it doesn't belong", "I hope it doesn't belong on the war project." Did you get that?

MR. GARRISON: I didn't.

MR. SILVERMAN: It was very indistinct.

MR. ROBB: I think it was "I".

MR. GARRISON: I heard some words after "war project" that I couldn't get. Also, some of the words in the next Pash paragraph at the end after one of the more important steps.

MR. ROBB: Most important steps.

MR. GARRISON: Most.

MR. ROBB: Dr. Oppenheimer said "I understand" after that.

MR. GARRISON: Yes. Then instead of "I have to take", it is "I wish"-- did you get that -- I understand that, but I have to take the following point. That is already your correction.

MR. ROBB: Yes.

MR. GRAY: Are there any other suggestions about that portion? I have no more. Will you proceed, Mr. Rathman.

(Recording.)

"Pash. Were these two people you mentioned, were they contacted at the same time?

"Oppenheimer: They were contacted within a week of each other.

"Pash. They were contacted at two different times.

"Oppenheimer. Yes, but not in each other's presence.

"Pash. That is right. And then from what you first heard, there is someone else who probably still remains here who was contacted as well.

"Oppenheimer: I think that is true.

"Pash. What I am driving at is that there was a plan, at least for some length of time, to make these contacts -- and we may not have known all the contacts.

"Oppenheimer: That is certainly true. That is why I mentioned it. If I knew all about it, then I would say forget it. I thought it would be appropriate to call to your attention the fact that these channels at one time existed.

"Pash. Yes.

"Oppenheimer. I really think that I am drawing a

line in the right place.

"Pash. You see, you understand that I am sort of -- you picture me as a blood hound on the trail and that I am trying to get out of you everything I possibly can.

"Oppenheimer: That is your duty to a certain extent.

"Pash. You see what I mean.

"Oppenheimer: It is also my duty not to implicate these people, acquaintances, or colleagues of whose position I am absolutely certain -- myself and my duty is to protect them.

"Pash. Oh, yes.

"Oppenheimer: If I thought that -- I won't say it -- it might be slightly off.

"Pash: Well, then, here's another point, Doctor, if we find that in making these various contacts that we get some information which would lead us to believe that certain of these men may have either considered it or still are considering it, mind you, I do not even know these men, so it can't be personal.

"Oppenheimer: No. Well, none of them that I had anything to do with even considered it. They were just upset about it. They have a feeling toward this country and have signed the espionage act; they feel this way about it for I think that the intermediary between Eltenton and the project, thought it was the wrong idea, but said that this was the situation.

I don't think he supported it. In fact, I know it.

"Pash. He made about at least three contacts that we know of.

"Oppenheimer: Well, I think that's right, yes.

"Pash: And two of those contacts are down there. That means we can assume at least that there is one of these men contacted still on the project here.

"Oppenheimer: Yes, I believe that this man has gone or is scheduled to go to Site X.

"Pash. This third man?

"Oppenheimer: I think so.

"Pash: Well, why can't you cross that line. I certainly appreciate this much.

"Oppenheimer: I think it is a thing you ought to know.

"Pash; Oh, no doubt.

"Oppenheimer: I think it is probably one of those sporadic things and I do not think -- I have no way of thinking it was systematic but I got from the way it was handled, which was rather loosely, and frankly if I were an agent I would not put much confidence in people who are loose-mouthed or casual."

MR. GRAY: Are there any observations about that portion of the transcript?

DR. EVANS: The word "Oppenheimer" was after "Doctor".

MR. GARRISON: The sixth paragraph, "Dr. Oppenheimer: I really think I am drawing a line in the right place." That phrase "a line in the right place" I didn't get.

MR. ROBB: Something about a line.

MR. GARRISON: Something about it.

MR. ROBB: If he plays it over enough, it will come out in the right place, but I don't know. I have not played it over enough. Do you want to play it again?

MR. GARRISON: I don't think so, unless we find something more difficult. I just want to say I didn't even get it.

MR. ROBB: I think in the paragraph below that where it says, "It is also my duty not to implicate these people, acquaintances, or colleagues" and so on, -- I think the and so on is correct.

MR. GARRISON: That is correct. And after the people "and who are".

MR. ROBB: I think so.

MR. GARRISON: There are some indistinct words in Mr. Pash's previous two sentences at the end. Then coming down, "Dr. Oppenheimer: If I thought that -- I won't say it -- it might be slightly off, and some indistinct words.

MR. ROBB: That is right.

MR. GARRISON: Then the next paragraph, "They were upset about it".

MR. ROBB: That is right.

MR. GARRISON: Then some indistinct words followed that.

MR. ROBB: I think so.

MR. GRAY: On that paragraph --

MR. GARRISON: All the rest of it seemed to me just fuzzy.

MR. GRAY: The word "even", I think, was not in that paragraph in the first line. While none of them that I had anything to do with considered it, they were just upset about it, is the way I heard it.

MR. GARRISON: Yes.

MR. ROBB: Do you want that paragraph played again?

MR. GARRISON: I am not sure it would do any good.

MR. ROBB: Let us try it.

(Recording.)

"Pash: Certain of these men may have considered it or are still considering it (mind you, I don't even know these men, so it can't be personal).

"Oppenheimer: None of these that I had anything to do with even considered it.

"Pash. Yes.

"Oppenheimer: They just were upset about it. They have a feeling toward this country and have signed the espionage act; they feel this way about it for I think that

the intermediary between Eltenton and the Project, thought it was the wrong idea, but said that this was the situation.

I don't think they supported it. In fact, I know it.

"Pash: He made about at least three contacts that we know of."

MR. ROBB: Mr. Garrison, I got "have a feeling", "espionage act", "intermediary between Eltenton and the Project thought it was wrong idea," "was the situation" and there are some words in between there that are indistinct. Is that the way you heard it?

MR. GARRISON: More or less. I am frank to say I would not feel confident.

MR. ROBB: I did heard "intermediary".

MR. GARRISON: I heard that.

MR. ROBB: "Project" and "wrong idea". "I don't think he supported it. In fact, I know it." I heard that.

MR. GARRISON: Yes.

MR. ROBB: Perhaps it is not too important.

MR. GARRISON: Now, on the next page, the third and fourth paragraphs, "This third man?" "That is right."

I am not quite sure of that.

MR. ROBB: Shall we have it again?

MR. GARRISON: Yes.

(Recording)

"Pash: He made about at least three contacts that

we know of.

"Oppenheimer: I think that's right, yes.

"Pash. And two of these contacts are down there. That means we can assume at least there is one of these men contacted still on the project.

"Oppenheimer: Yes. I believe that this man has gone or is scheduled to go to Site X.

"Pash: This third man?

"Oppenheimer: I think so."

MR. ROBB: All right. Mr. Garrison?

MR. GARRISON: I heard the words "This third man". I heard some indistinct words at the end of the preceding sentence. "That is right," I didn't hear.

MR. ROBB: That is unquestionably there. Will you play it again?

(Recording.)

"Pash: This third man?

"Oppenheimer: I think so."

MR. ROBB: That is right.

MR. GARRISON: I heard something like picture.

MR. ROBB: I think that is the picture.

MR. GARRISON: Something like that.

MR. ROBB: It could be.

MR. GARRISON: Why don't we pass it?

MR. ROBB: One thing, Mr. Chairman. I noticed on

the other page.

MR. GARRISON: Could I have it once again.

(Recording.)

"Yes, I believe that this man has gone, or is scheduled to go to Site X.

"Pash: This third man?

"Oppenheimer: I think so."

MR. SILVERMAN: I thought he said, "I think so."

MR. GARRISON: It sounded this time more like, "I think so." I really just don't know.

MR. GRAY: It would appear, would it not, whether Dr. Oppenheimer said, "That is right", or "That is the picture", or "I think so", that he was not indicating disagreement with Colonel Pash at that point?

MR. GARRISON: I would take that to be so.

MR. ROBB: Mr. Chairman, I did notice one thing in the record. It mentions on page 7 of the transcript on the fourth line from the top, as I heard it, it reads, "What I am driving at is that means that there was a plan."

DR. EVANS: I thought it was "is". It doesn't matter at all.

MR. ROBB: Did you get that, Mr. Garrison?

MR. GARRISON: No.

MR. ROBB: You don't want to hear that again?

MR. GARRISON: No.

MR. ROBB: You won't agree on that?

MR. GARRISON: I don't think it is important enough to play again.

DR. EVANS: I don't, either.

MR. ROBB: All right.

MR. GRAY: Are we ready to proceed with the next portion?

(Recording)

"I would not think that this was a very highly organized or very well put together plan but I don't know and I was very much afraid when I heard of Lomanitz' indiscretion that it might very well be serious. I hope that isn't the case.

"Pash: You mentioned that this man may be a member of the FAECT. Do you think, as a representative of the organization, he would sort of represent their attitude or do you think he is doing that individually?

"Oppenheimer: Oh, the FAECT is quite a big union and has all sorts of people in it. I am pretty sure and I don't think it is conceivable that he could be representing the attitude of the union --

"Pash: Well, I don't know enough about it to --

"Oppenheimer: I think that -- well, I don't know. I think at one time they had a strong branch up at the Shell Development Research Laboratories, the FAECT, and I

believe it is the union which has got organized on the Hill.

"Johnson: Yes, it has been around for some time.

"Pash: This man Eitenton is a scientist?

"Oppenheimer: I don't know. I would guess he is some sort of a chemical engineer.

"Pash: Would he be in a position to understand the information furnished him?

"Oppenheimer: I don't know that either. It would depend on how well it was furnished. I mean he has some scientific training and certainly if you sat down with him and took a little time. My view about this whole damn thing, of course, is that the information we are working on is probably known to all the governments that care to find out. The information about what we are doing is probably of no use because it is so damn complicated. I don't -- I mean I don't agree that the security problem on this project is a bitter one, because if one means by the security problem preventing information of technical use to another country from escaping. But I do think that the intensity of our effort and our concern of the international investment involved -- that is information which might alter the course of the other governments, and I don't think it would have any effect on Russia (inaudible). It might have a very big effect on Germany, and I am convinced about that and that is as everyone else is.

"Pash: Oh.

"Oppenheimer: To give it roughly what we're after and I think they don't need to know the technical details because if they were going to do it they would do it in a different way -- they wouldn't take our methods -- they couldn't because of certain geographical differences, so I think the kind of thing that would do the greatest damage if it got out would just be the magnitude of the problem and of the time schedules which we think we have of that kind.

"Pash: To answer your question -- Eltenton if you were picking a man which would be an intermediary he wouldn't be a bad choice, I would mention he had some kind of chemical engineering job in Russia. He was trained in England, also in Russia four or five years and things like that. Does he speak Russian, do you know?

"Oppenheimer: I don't know. I don't know. He speaks with a slight English accent.

"Pash: If it is necessary would you mind and would it interfere with your work if I would have --,"

MR. ROBB: Mr. Chairman, I know the paragraph marked "P" in this transcript on page 9 about a third of the way down is actually Dr. Oppenheimer speaking, "To answer your question" and so on. Colonel Pash made some interruption and then Dr. Oppenheimer continued. Did you get that?

MR. GARRISON: No, I didn't.

MR. ROBB: Page 9, "To answer your question -- Elten-  
ton if you were picking a man which would be an intermediary  
he wouldn't be a bad choice." That is obviously Dr.  
Oppenheimer.

MR. GARRISON: Dr. Oppenheimer's voice does come in  
there.

MR. ROBB: That is Dr. Oppenheimer speaking there  
and not Colonel Pash.

"MR. GARRISON: I am not sure the words "To  
answer your question" --

MR. ROBB: Could we play that?

MR. GRAY: Before we play it back, let me make a  
couple of other observations.

In the first paragraph on this page, the fifth  
line from the end of the paragraph, "and our concern of the"  
"national" investment involved", rather than the "International"  
investment.

MR. ROBB: Yes, sir.

MR. GARRISON: Our concern with, I think it was  
also.

MR. GRAY: Yes.

MR. GARRISON: And some words after the word  
"escaping" that were indistinct, and before the word "but".

MR. ROBB: I think so.

MR. GARRISON: And the dots after the word "Russia" contained some words.

MR. GRAY: Would you play that portion again?

MR. ROLANDER: The last third.

MR. GARRISON: Before we do that, perhaps we could make one or two observations so that we can be listening to it.

MR. GRAY: Yes.

MR. GARRISON: In the next Oppenheimer paragraph, there are some indistinct words to begin with, and "to give it roughly", I thought it read "To give the Russians" or "To give to Russia."

MR. ROBB: It could be.

MR. GARRISON: And I think they don't -- that seemed to me fuzzy.

MR. GRAY: Let us listen to that again.

(Recording)

"(inaudible) it might have a very big effect on Germany, and I am convinced about that and that is as everyone else is.

"(inaudible) And I think they don't need to know the technical details, because if they were going to do it, they would do it in a different way. They wouldn't take our methods (inaudible) so I think the kind of thing that would do the greatest damage if it got out would just be the magnitude of the problem and of the time schedules which we

think we have, that kind of thing.

To answer your question, Eltenton --

"Pash: Uh huh.

"Oppenheimer: To answer your question -- Eltenton if you were picking a man to be an intermediary would not be a bad choice. He had some kind of chemical engineering job in Russia. He was trained in England, he was in Russia for four or five years (inaudible)

"Pash. Does he speak Russian, do you know?

"Oppenheimer: I don't know. (inaudible) with a slight English accent."

MR. ROBB: Mr. Garrison, did you catch that now? that the "P" paragraph should be really Dr. Oppenheimer?

MR. GARRISON: Yes.

DR. EVANS: And that is "roughly" and not "Russia"?

MR. ROBB: I think it is.

MR. GRAY: I think in that paragraph the language "He was trained in England, was in Russia four or five years," rather than "also in Russia.

MR. ROBB: I got it "and in Russia".

MR. GRAY: It does make a little difference to say he was trained in Russia or was in Russia.

MR. SILVERMAN: I heard it the way the Chairman did.

DR. EVANS: So did I.

MR. ROBB: Was in Russia.

MR. GRAY: He was trained in England, was in Russia four or five years.

In the preceding paragraph, in the interests of grammar, I think actually what Dr. Oppenheimer said at the end of that paragraph, "and of the time schedules which we have, that kind of thing", this is very unimportant.

MR. ROBB: "which we have -- that kind of thing."

MR. GARRISON: Mr. Chairman, I wonder if we might take a five minute recess. We have a very serious problem about our witnesses. Dr. Bethe is here in town ready to testify. So is Mr. Gordon Dean. Dr. Kennan is here from out of town. Dr. Buckley, you remember we talked about last week, is here. Dr. Fisk is here from New York, and General Osborne is also here. I just at this point don't know what to suggest. Obviously if we go through this at the rate we are, it will consume most of the rest of the morning and some of this testimony will be quite of considerable length and I think quite important to the Board. I know it would be informative to the Board.

MR. GRAY: I would like to ask the Board members a question about a ruling that you may recall I made earlier about the necessity for us to hear with counsel the remainder of this transcript. My reaction was that, as I stated, if there were to be any changes, we should hear the discussion, but it does occur to me after having thought

about it , if counsel agree, there is no problem. In the event there is disagreement and it seems to be a material matter, then perhaps we should hear those portions about which there is disagreement. I would want to make sure that the Board would agree with that different kind of ruling on that question.

MR. MORGAN: Yes.

MR. GRAY: Is that all right, Dr. Evans?

DR. EVANS: I was certainly in accord with you that we ought to go over this thing together, but if it is necessary, I shall agree to do it the other way.

MR. GRAY: I am sure that counsel will be diligent. To the extent that counsel can agree, I think it would appear to be pretty clear and if you cannot, perhaps we shall have to hear the disputed portions. Is that satisfactory to you?

MR. ROBB: Yes, sir. I might suggest that in view of the fact that we will be changing our methods of operation as it were, I think we ought to attempt to get a complete transcript on which we can agree, so it will be all set out at one part of the record because the record will be hard to understand.

MR. GARRISON: I think it is important that the record indicate what has taken place.

MR. ROBB: Yes.

MR. GARRISON: I think we should agree and stipulate on the changes we should make and bring that back to the Board for its approval and incorporation in the record, and that the whole document in its original form should go in the record.

MR. ROBB: Mr. Chairman, I might say I also think that the Lansdale transcript should also be set up in the record at the same time. I don't think there is any need to read that, because counsel has had it and has read it. Mr. Lansdale testified about it on Friday.

MR. GARRISON: I would like when we have time to read it into the record, because there are some comments, Mr. Chairman, that I would like to make about some passages in it as we go along. I think the transcript as a whole gives a rather fresh impression, and rather a different one of the whole interview. There are some things in it that are really quite worth a moment of thought as we go along. Not for the purpose of correction, but for the purpose of illustrating what I think took place.

MR. ROBB: Mr. Chairman, I have some questions as to whether counsel should read a transcript and at the same time make an argument about it. It seems to me that the transcript ought to be before the Board for such use as the Board wants to make of it. I assume that there will be an appropriate time at the close of these proceedings when

counsel can make his argument.

MR. GARRISON: All right. I withdraw that, Mr. Chairman. But I would like to have it read, because I think it is important for the Board to hear it.

MR. GRAY: The Board has read it, I assume. You want to read it aloud?

MR. GARRISON: Yes.

MR. GRAY: If a request is made for that procedure, I think we will follow it so that it will at the appropriate time be read. I do not think we ought to interrupt at this point to read it.

MR. ROBB: No, sir.

MR. GRAY: Let us take a recess in any event.

MR. GARRISON: Mr. Chairman, at the end of the recess, I think we would be prepared to have Dr. Bethe.

MR. GRAY: All right.

(Brief recess.)

MR. GRAY: Do you wish to testify under oath?  
You are not required to do so.

MR. DEAN: I would be happy to, if that is the custom.

MR. GRAY: All the witnesses have.

MR. DEAN: I shall be glad to.

MR. GRAY: Would you stand and raise your right hand. Gordon Dean, do you swear that the testimony you are

to give the Board shall be the truth, the whole truth and nothing but the truth, so help you God?

MR. DEAN: I do.

Whereupon

GORDON DEAN

was called as a witness, and having been first duly sworn, was examined and testified as follows:

MR. GRAY: It is my duty, Mr. Dean, to say to you that in the event that it becomes necessary for you to discuss restricted data in your testimony, you should advise the Chairman of the Board of any such disclosure. We would appreciate your cooperation in that respect.

A further observatbn I should like to make to you is that the proceedings and record of this board are regarded by us as strittly confidential between the Commission and its officials and Dr. Oppenheimer and his representatives and associates, and that the Commission will take no initiative in the public release of any information relating to these proceedings. I think on behalf of the Board, I express the hope that witnesses may take the same attitude about it.

I think perhaps for the record also that it is my duty, Mr. Dean, to remind you of the penalties under the perjury statutes. I should be glad to read a summary of those provisions, but I assume you are thoboughly familiar

with them.

THE WITNESS: I am familiar with them.

MR. GRAY: Mr. Garrison.

DIRECT EXAMINATION

BY MR. GARRISON:

Q Mr. Dean, you are a member of Lehman Brothers in New York?

A I am.

Q And you served on the Atomic Energy Commission from May 1949 to June 1943?

A That is correct.

Q And you were appointed Chairman, when was that, August 1950?

A I think it was the latter part of August -- no, the early part of August or the last part of July. I have forgotten the exact date. It was the summer of 1950.

Q When did you first become acquainted with Dr. Oppenheimer?

A I had never met Dr. Oppenheimer until I came to the Commission. I met him for the first time when I as a member of the Commission met with the General Advisory Committee of which he was then the Chairman.

Q Could you give the Board a general picture of the positive work of the General Advisory Committee during Dr. Oppenheimer's chairmanship, as you saw it. By positive, I

mean what the GAC did to build up and strengthen the military position of the country.

A I assume that some of this may be repetitious. The General Advisory Committee was established by law. The members were appointed by the President. They selected their own chairman. This was the way in which Dr. Oppenheimer, having once been appointed by the President, was made chairman of that committee.

They used to meet about every month and a half to two months. I think the minimum requirement was four times a year, but they met much more frequently than that. They sometimes have special called meetings so that they would get together on occasions as much as perhaps three weeks apart if the occasion justified it.

They also worked through subcommittees of the General Advisory Committee. There was one on weapons. The General Advisory Committee is essentially a committee of senior scientific people. There were a few exceptions. There were from time to time outstanding businessmen on it. But primarily it is a senior scientific advisory group to the Commission, and so specified in the law.

They have been very active. They were every moment from the time I went on the Commission. It was a very important committee and contributed very much in guidance to the Commission on very difficult problems that we had,

particularly scientific problems.

Q What was the attitude of the committee under Dr. Oppenheimer's chairmanship with respect to the expansion of our atomic facilities?

A In every case -- and I might say this to give you just a little bit of history -- the Atomic Energy Commission underwent a series of expansions of its facilities. By expansions, I mean this: The design, the construction, and the putting into operation of large reactors, such as those out at Hanford, to produce plutonium or tritium or other products. The expansion of the large gaseous diffusion plants which gives you your uranium 235. In other words, when you are talking about facilities, you are talking about facilities which give you the two component parts of a weapon, the plutonium and U-235 fissionable material.

All of these expansions were blessed by the General Advisory Committee. I know of no instance where there was an expansion program beginning with the summer of 1949 when we went into building a new gaseous diffusion plant at Oak Ridge, up until the latest big expansion of 1953, which was a three billion dollar expansion program I know of no instance when the expansion program was not thoroughly backed by the General Advisory Committee and heartily backed.

Q Did they help to suggest and initiate expansion programs?

A This I would almost have to go back and refer to the minutes of meetings to tell you where an expansion program initiates. It is very hard to put your finger on it. A need arises, and there are many huddles. Probably the records would show that some had originated with the GAC but on this I am not sure. We certainly consulted with them each time when we were thinking of an expansion program. They always blessed it.

Q You spoke of the Weapons Subcommittee. Was Dr. Oppenheimer a member of that?

A I think he was a member of the Weapons Subcommittee the entire time I was on the Commission. He was certainly very active in it, it was the most active committee of the GAC. I should say this so far as the GAC and weapons are concerned: I would think that at least 50 per cent, and perhaps much more of its time was spent in the weapons field. There was far more interest on the part of GAC on the weapons program at Los Alamos and the production of fissionable materials than in any other phase.

Q Do you recall a conversation with Dr. Oppenheimer in the spring of 1950 about a bucket of neutrons?

A I do.

Q Can you say something about the significance of that and of Dr. Oppenheimer's view about what ought to be done?

A The reference to neutrons was really a suggestion.

He spoke of it in the slang term -- a bucket of neutrons. What he really meant was that what the Commission needed more than anything else were some reactors in which neutrons could be put to their best use. This was in a sense the idea behind the Savannah River design and the Savannah River reactors, which were dual purpose. I am not sure whether that is classified or not. Let us end it there. That was the reason behind the Savannah River reactors.

It was in the spring of 1950 that we were considering an expansion program which could carry us either into a strong A-program or a strong H-program, depending on what our research and development program showed.

MR. GRAY: Did you say the spring of 1950?

THE WITNESS: The spring of 1950. That is when we were getting together and wrapping up the kind of expansion program in order to take care of a stronger A and H program. This is when we first began to think of how we could build the Savannah River reactors. It was an entirely new design. That was put through Congress, as I recall, in the matter of about 90 days in the late spring and early summer of 1950.

MR. GRAY: This is before you became a member of the Commission.

THE WITNESS: It began to be discussed while I was a member, and then I had to present the program to the

Congress in either the late summer -- it could have been early fall of 1950.

BY MR. GARRISON:

Q You became a member of the Commission in May 1949?

A Yes, in May, 1949.

MR. GRAY: I beg your pardon. I had the years confused. You were on the Commission when all of this developed.

THE WITNESS: Yes, I am not testifying to anything I did not see or experience myself.

BY MR. GARRISON:

Q Dr. Oppenheimer was helpful in connection with this strengthening of the program you have devised?

A Always. There was one big problem that we had and that was precisely what kind of design for the Savannah River reactors, and whether you optimized them to produce plutonium or whether you optimized them for the production of other things that looked likely in the thermonuclear program. That went back and forth many times, but it was a question simply of the economics of buying neutrons, so to speak.

Q There was a meeting in June 1951 at Princeton in connection with the H bomb program?

A There was. If I could give you a little history before we get to that June meeting, I would like to go back to the fall of 1949. I think it is necessary to have in the

back of your mind before you talk about this June meeting in Princeton, in the fall of 1949, the Russians, we learned, this was September, had exploded their first A bomb. Dr. Oppenheimer, along with two or three other persons, were brought in here under the auspices, rather joint, of the Atomic Energy Commission and the Air Force, to analyze the Russian explosion. This they did and came up with the conclusion that there was no question but that the Russians had exploded an A bomb.

Then the question became one of having lost our monopoly, if we ever had it, what so we do to intensify the atomic energy program of this country.

Many things were suggested, including bringing in certain corporations with certain know-how, such as the duPont company, which was done, and they did eventually build the Savannah River reactors.

Work on the thermonuclear weapon, many other things, I can't list them all, they can be found in a classified statement which I made before the Joint Committee on Atomic Energy in a closed session. If you have occasion to refer to that, I remember being asked the question, "What do you do now" and I listed about eight or ten things.

MR. GRAY: What was the approximate date of that?

THE WITNESS: This would be in the fall of 1949. This started quite a discussion inside the AEC as to what

priority should be given to a thermonuclear weapon.

The only thing that we knew about in this field at that time was one method of approach, which unfortunately if it is to remain classified, I cannot describe, but I will try to do it in unclassified language.

There was one way of approaching the problem. Nobody had ever built such a gadget. Nobody had ever accumulated enough materials to actually fire a gadget of this kind, as it was then thought of. Nevertheless, there was a feeling on the part of some, including myself, that an effort to go into the thermonuclear or fusion field was something that we could not overlook.

Here was a new field. Here was a potential source of great energy. While we didn't know what the gadget might look like when we got through, certainly it should have a high priority in the shop. There were others who felt differently. This was a matter of much discussion. There were discussions at that time between the General Advisory Committee and the Atomic Energy Commission. Most of the General Advisory Committee, all of them, decided that we should not go ahead under a high priority in the thermonuclear field at that time.

The reasons as I recall them were several. There was, I think, in the background on the part of some what I would call a visceral reaction --

MR. ROBB: Pardon me?

THE WITNESS: Visceral, tummy -- of going into a field such as this at this point, when these people had developed an A bomb. They had seen it used successfully. Our A bombs were getting stronger every year. Our stockpile was growing.

BY MR. GARRISON:

Q Excuse me.

A I am trying to describe the events of 1949 and relate them later to the June meeting.

Q I think since we started on this fall of 1949, we better postpone the discussion of the Princeton meeting. I asked you about that only to give the general picture of the work of the GAC.

A All right.

Q I think it is best we continue now. Since you started on this, I think perhaps it is more appropriate anyway chronologically to take it. Are you now beginning to describe the attitudes of the members of the GAC at their October 1949 meeting?

A I am as best I recall them.

Q Then suppose we have it understood that you are now telling the Board the general nature of what the GAC reported to the Commission. I would like to go just for a minute into the question of the scope of the report of the GAC to the AEC, and ask you whether in your opinion the GAC

exceeded its statutory functions or just how you looked upon the role of the GAC as an adviser to the Commission.

A The GAC used to be concerned sometimes that it was perhaps exceeding its strict statutory functions. This was never too important to me. I always felt that if we could get the wisdom of the people who were on the General Advisory Committee, we should have it. So what their statutory function as a committee was was not important to me.

In this instance, in the fall of 1949, it was not a question of anybody exceeding authority. The then Chairman of the Commission, Mr. Lilienthal, had asked the General Advisory Committee very specifically to review this question of whether we should attach a high priority to a thermonuclear or fusion program. They were asked this question. They were asked to consider it at their meeting which took place in October 1949.

They did consider it. I think they considered little else, I think for about three days, than this issue. They came in with their report to the effect that they felt it was a mistake.

The reasons that they gave I suppose appear in the minutes of the General Advisory Committee, but we had many discussions and those don't appear in the minutes.

The reasons were many. I said there was one, a visceral reaction at first. If I am not departing from the

role of witness, I would like to give you my understanding of that reaction.

These were men who had developed the A-bomb. Oppenheimer had the big hand in it, as you know. He also had a hand in the measures for the international control of atomic energy, and served on the board, and was a co-author --

Q By the Board, you mean the Lilienthal panel?

A The Lilienthal panel which later substantially was turned into the Baruch Plan in the UN. They were hopeful at that time that you would not have the world in the position where you had two great powers simply stockpiling weapons and no solution to the problem. Consequently, after two or three years of rather frustrating dealings with the Russians, when this proposal of building another bigger one hit them, as some said, as the answer to our national security, I think it rather floored them and disgusted them. They lived through the B bomb. They tried to get international control. If this was the only answer to the problem, namely, of building bigger H bombs, this was not a satisfactory answer for those people. I think it was a stomach reaction along those lines.

I did not agree with it, but I think I can understand it.

Q You are referring to those members of the GAC who were atomic scientists.

A That is right, and specifically I would say to Oppenheimer and also to Fermi and others who sat on the Board and Conant, because they had all been in the program. There were other reasons, however, beyond the tummy reasons for opposing it at that time. You don't decide to manufacture something that has never been invented. Nothing had been invented. No one had any idea what the cost of this thing would be in terms of plutonium bombs. As the debate or discussions waged in the fall of 1949, we had so little information that it was very difficult to know whether this was the wise thing to do -- to go after a bomb that might cost us anywhere from 20 plutonium bombs up to 80 plutonium bombs, and then after two or three years effort find that it didn't work. That was the kind of problem. So there were some economics in this thing.

There was another reason. This was how much of a diversion of Los Alamos -- energies, scientific energies, could you safely divert to a project which might or might not succeed when the ball was rolling so beautifully in your A bomb program, and we were getting more bang out of our fissionable material, more weapons for the same amount of fissionable material.

Those were all considerations. There may have been others in there that I have overlooked, but those are the principal ones.

The unknown quantity was very much there. You don't build bombs by memoranda. We could write and discuss and interchange papers all night long and still we were in the dark on this thing.

Mr. Strauss and I at that time felt quite strongly we nevertheless should embark on this.

Q This is after the GAC report?

A This is after the GAC report. The GAC had another meeting shortly after the October meeting. I think they came together in a matter of three or four weeks, and as I recall they reiterated their stand of the October meeting.

The Commission realized -- if I can turn from that now for the chronology -- this was a decision which could not be and should not be made alone by the Atomic Energy Commission. It was something that had to be resolved eventually by the President. He should make it only after consulting with the Secretary of Defense and the Secretary of State. So instead of taking a vote, a vote as such as I recall was never taken on this issue -- we did get together and try to write a paper for the President's guidance -- we, as the Commission, in that we attempted to find as many things as we could agree on, premises that we believed to be true, and we wrote those down first. Then we wrote down what might be called a majority report and a minority report. Then we all added individual opinions. So the President could have

everything before him.

The paper was given to the Secretary of State, the Secretary of Defense. They had a meeting and the Commission was ordered to go on a high priority thermonuclear research development, and this was done.

Once the President made the decision, I know of no instance where it could be said that the members of the General Advisory Committee, or any individual, opposed that program. I know of many instances where they helped it and at great pains.

This leads me, I think, into the June meeting.

Q Perhaps just before we get there, there was a problem of recruitment of physicists.

A There was a problem.

Q After the President's go ahead order. Was the GAO, specifically Dr. Oppenheimer, helpful in that respect?

A The story did come to me once through Dr. Teller that he was fearful that he would not get much help out of Dr. Oppenheimer in this recruitment program. I said to Dr. Teller, "I think what you should do is go up and see Dr. Oppenheimer, and see if he can not give you some help." So he did. He went to Princeton. My recollection is -- I can't give you the exact date on this -- I do recall his going to Princeton and I do recall Dr. Oppenheimer giving him a list of some 10 or 12 names at least of people he thought

would be helpful in this program. Teller later advised me that these people were all either at Princeton or the Advanced Institute, and that he was not able to get any of them to leave. That is the story on recruitment.

I did several times in appearing before the General Advisory Committee in the summer of 1950 and the spring of 1951, the winter of 1950, ask them for names of people that we could get into the program from universities, from private industry and so forth, and some names were given to me. Some we were successful in getting; others we were not. I know of no instance, however, where anyone was discouraged from working on the program by Dr. Oppenheimer.

During the spring and summer of 1950, some rather striking developments came along in the A bomb program. Remember our stockpile at that time was not as big as we would like to have had it. These developments were very big. I think the GAC went out to Los Alamos in the summer of 1950, the weapons committee, and worked with Dr. Bacher, who was then on leave from Cal Tech, and spending some time as a consultant at Los Alamos. Out of this summer's work and it is hard to credit it to any one person, came some very significant developments which as I say almost made it possible to double our stockpile of A bombs. This was happening at the same time that the H program looked very discouraging.

Some studies had been made by Dr. Ulam at Los Alamos

and he ran some samplings which made it look as though an H bomb built along the lines that were talked about in the fall of 1949 just could not be done, or if done it would be at such a great cost in A bombs that you couldn't pay the price.

These things were happening. The H bomb program looked bad. Every result was discouraging. The A bomb program was improving. However, in the spring of 1951, we started a series of tests. By that I mean test explosions. We opened in a jury rig fashion on the Nevada proving ground. As I recall in that year we shot something like 14, 15, maybe 16 bombs altogether. Four at Eniwetok in the spring of 1951, and quite a few in Nevada. Some of these bore some relationship to a possible H program, and notably one shot which was fired in May of 1951 at Eniwetok, which I can't describe without using classified information.

After that explosion I thought it was high time that we got together all the people who had any kind of a view on H weapons. Of course, there were many views among the scientists. By views, I don't mean views as to whether you could have one, but views of whether you could have one and how you would get it.

I talked as I recall to two or three of the Commissioners and said wouldn't it be good if we could get them all around a table and make them all face each other

and get the blackboard out and agree on some priorities.

We did do that. We asked Dr. Oppenheimer, as chairman of the Weapons Committee of the GAC, to preside at the meeting. We had at that meeting in Princeton in June of 1951 every person, I think, that could conceivably have made a contribution. People like Norris Bradbury, head of the Los Alamos laboratory, and one or two of his assistants, Dr. Nordheim, I believe, was there from Los Alamos, very active in the H program. Johnny von Neumann from Princeton, one of the best weapons men in the world, Dr. Teller, Dr. Bethe, Dr. Fermi, Johnny Wheeler, all the top men from every laboratory, sat around this table and we went at it for two days.

Out of the meeting came something which Edward Teller brought into the meeting with his own head, which was an entirely new way of approaching a thermonuclear weapon. It was so different from the things that had been kicked around back in the fall of 1949 that there was no resemblance.

I would like to be able to describe that but it is one of the most sensitive things we have left in the Atomic Energy program -- this method. It was just a theory at this point. Pictures were drawn on the board. Calculations were made, Dr. Bethe, Dr. Teller, Dr. Fermi participating the most in this. Oppy very actively as well.

At the end of those two days we were all convinced,

everyone in the room, that at least we had something for the first time that looked feasible in the way of an idea. The old idea of the weapon was pretty well discarded. It got about a fourth priority. Two gadgets were decided upon to try. One had great promise. We didn't know whether it was going to work or not, but it had great promise.

I remember leaving that meeting impressed with this fact, that everyone around that table without exception, and this included Dr. Oppenheimer, was enthusiastic now that you had something foreseeable. I remember going out and in four days making a commitment for a new plant to develop an entirely new material. We had no money in the budget to do it with and getting this thing started on the tracks, there was enthusiasm right through the program for the first time. The bickering was gone. The discussions were pretty well ended, and we were able within a matter of just about one year to have that gadget ready.

It had to be shipped to Eniwetok. We had to lay it on the task force and it was fired in November 1952.

Since then there have been many others fired out in the Pacific in this field.

That is the significance of the June meeting. It was the first time that all competent people in this program that could contribute anything sat around the same table and finally came up with something they all agreed on. That is

when it began to roll and it rolled very fast then.

That is the chronology of it.

Q Mr. Oppenheimer was the Chairman of the meeting and presided?

A He presided at the meeting and participated actively in the meeting and left the meeting enthusiastic. I recall talking with him afterwards, and he was I could say almost thrilled that we had something here that looked as though it might work. It has since been demonstrated, I might say, that the gadget which we originally thought of in 1949 probably never would work and would have cost in terms of A bombs a price we could never have paid.

Q You remember the Crouch incident with which the Board here is familiar?

A The first recollection I have of that, I guess the only one --

Q I am not asking you to recite what it was, because the Board knows all about it.

A Yes, I remember the Crouch incident. If you mean by that his testimony in California.

Q Yes.

A Yes.

Q After that was brought to the attention of the Commission, did the Chairman ask you to go through Dr. Oppenheimer's personnel file and inquire into the whole question.

of his clearance?

A I wonder if you could refresh my recollection on the date. Was this about the summer of 1950?

Q It was in May of 1950, in the spring of 1950.

A As I recall it, it was before I became chairman. I may have been acting chairman that day in the absence of the chairman. The Crouch incident was brought to my attention. I thought it was something that we ought to talk to Dr. Oppenheimer about.

I asked our general counsel, Mr. Volpe, to talk to Dr. Oppenheimer about this Crouch incident. I wanted it delicately done in the first place. I had no idea whether Crouch was telling the truth or not. He did, and reported back to me that he had gone into this at great length with Dr. Oppenheimer, and that no such meeting as Crouch had described, which was as I recall a kind of a meeting of a Communist cell to recite the Party Line, that was supposed to have taken place somewhere in Berkeley back in 1940 or so, no such meeting had ever taken place.

He said, "I won't say that I didn't meet Crouch at some cocktail party or something like that, because we had plenty of people around the place, but no such meeting as this, you can be sure."

"I never sat in on any Communist meeting or Communist cell meeting. This picture as I recall is a small

group of four or five people had gone off in a room in a house and talked over the Communist Party line.

Q Did you go through Dr. Oppenheimer's personnel file?

A I did. This is the first occasion I ever had to look at Dr. Oppenheimer's personnel file. Ordinarily Commissioners don't go through the files of people unless there is some real reason. Here, however, was a person who was Chairman of the committee; he had been cleared in 1947 by the Commission, and I for the first time picked it up and went through it personally myself.

I then asked Dr. Oppenheimer if he could come in and see me about this, and I personally asked him about the Gouch incident. He said substantially what I have said he said in reply to Mr. Volpe, and I believed him.

Q Did you continue to read matters that went into his personnel file after this?

A I told the security officer, I believe, or perhaps my secretary, that anything coming from the FBI concerning Dr. Oppenheimer I wanted to see, and file in my own mind at least.

Two or three did come in. Because here was a file with a lot of early association evidence, I thought he was too important a man for me to overlook him, and it was my responsibility as Chairman, also. So I did see, I am sure, every memorandum from the FBI. But there were only two or

three, and there was nothing particularly new in them, as I recall, from that point on.

Q What was your belief as to Dr. Oppenheimer's loyalty after you had been through the file and had talked with him?

A There was no question in my mind -- I must say when I first looked at the file, I had doubts, largely growing out of these early associations -- but there was never any doubt in my mind after I examined the file and based partly on my knowledge of Dr. Oppenheimer, which was very close, there was never any doubt as to his loyalty in my opinion. None. That decision had to be made one way or the other. It could not be half way. There were some very unpleasant early associations when you look at them in retrospect, but as far as his loyalty I was convinced of it, not that the file convinced me so much, but the fact that here was a man, one of the few men who can demonstrate his loyalty to his country by his performance. Most people illustrate their loyalty in negative terms. They did not see somebody. Here is a man who had an unusual record of performance. It is much broader than I have indicated so far.

Q Would you state to the Board your general impression of his character as well as his loyalty, his integrity and sense of discretion? How would you rate those qualities?

A I would say that he is a very human man, a sensitive man, a very well educated man, a man of complete integrity in my association with him. And a very devoted man to his country, and certainly to the Commission. No question of these things in my mind.

Q Would you say a word about Dr. Oppenheimer's interest in military defense in late 1952 and early 1953 in connection with Operation Lincoln, for example? I don't want you to go into great detail.

A I will just say a word about that because I was not particularly identified with Project Lincoln. Dr. Oppenheimer had many advisory posts to the Secretary of State, Secretary of Defense, and advisor, if not a member, of the Committee on Atomic Energy of the Research and Development Board, and others, and participated in many studies. When he left -- when his term had expired -- as Chairman of the GAC in the summer of 1952, he particularly turned his attention to defense measures against A bombs and spent a very large share of his time on such questions as the necessity for an adequate radar net, early warning radar system, on certain civilian defense measures, and on the importance of interception, and as always the importance of our capacity to deliver our bombs.

From the very beginning I recall this is one of Dr. Oppenheimer's great worries, that our Air Force would not stay

up at the level of our bomb production, that some day we might find ourselves short of delivery. So he was concerned with all four of these things.

Q You have sat on the Security Council since President Eisenhower's election?

A Several times on special things.

MR. GRAY: Would you repeat that?

MR. GARRISON: I asked him if he had sat on the Security Council under the present administration.

MR. GRAY: The National Security Council?

MR. GARRISON: Yes.

THE WITNESS: The Chairman is not a member of it. But as questions came up touching on atomic energy the Chairman of the AEC, which I was at the time, was invited over to participate. I guess there were four or five occasions, perhaps more, in the spring of last year when I did sit in on the National Security Council on atomic matters.

BY MR. GARRISON:

Q Did Dr. Bush and Dr. Oppenheimer come before the Council when you were sitting on it?

A They appeared one day, yes. They made a presentation, the nature of which I am sorry I am a little hazy on. I think it had mostly to do with what at that time was perhaps loosely called Operation Candor, and with civilian defense and other defensive devices.

Q In all of your contacts with Dr. Oppenheimer, has he ever underestimated the Russian threat in your opinion?

A Never. From the very earliest times Oppenheimer has been worried very much about, first of all, the lack of reliability of the Russians. He showed some frustration in our inability in the early days to work out a system and he never underestimated the Russians. A lot of our people have, but this is one man who never did.

Q Do you remember a discussion with Dr. Oppenheimer in the fall of 1950 about his Chairmanship of the GAC?

A Yes. This was after I was Chairman. Dr. Oppenheimer came to me one day -- his term had to run until August of 1952, I think.

Q As a member?

A As a member. He was then Chairman. He said he knew that we had had quite a disagreement on the H bomb program back in 1949 and whether it should have a high priority. He told me that he thought that this had perhaps hurt his effectiveness on the General Advisory Committee, and that he was prepared to get off if for one moment I thought that his effectiveness had been so hurt that he could not serve.

I thought about it for a few moments -- in fact, I had thought about it before -- and I told him that I thought that the General Advisory Committee would definitely lose, and so would the Commission, if we lost him from it at that

that time, and that I felt as one who had disagreed with him on the thermonuclear program that his effectiveness perhaps had been hurt in some quarters and some people's opinions, but not in mine. I would miss him very much if he left.

When 1952 came around, he had served his time and he said, "I have been on too long. I think newer heads should be brought into the program," and he said, "I hope you would not urge the President to reappoint me." So I sent a letter to the President saying that these three members, Conant, DuBridge and Oppenheimer were leaving. I prepared a draft of the letter for the President to sign for each one of them thanking them for their services, and that was the end of Dr. Oppenheimer's term.

Q Summing up your convictions about Dr. Oppenheimer, you have testified to his loyalty and to his integrity and character with full knowledge of what you told us about your reading of his personnel file. I take it, also, that it goes without saying that you have read the Commission's letter which initiated this proceeding?

A The charges? Yes, I have.

Q The Commission refers to them as items of derogatory information, and not as charges.

A That is right. I read that letter.

Q On the basis of that knowledge and your experience

with him, in your opinion is he or is he not a security risk?

A He is not a security risk in my opinion. If I had so considered him a security risk, I would have initiated such a hearing long, long ago. I think his usefulness has been impaired by all this. I don't know how much he can contribute further to his country, but I would hope we would get the maximum out of him. I am certain that he is devoted to his country and if given an opportunity to serve, will serve and effectively as always.

MR. GARRISON: That is all, Mr. Chairman.

CROSS EXAMINATION

BY MR. ROBB:

Q Mr. Dean, Dr. Oppenheimer has testified before this Board in substance that in 1943 he became aware of an attempt at Russian espionage against the atomic bomb project. He has further testified that when interviewed about this matter by intelligence officers of the United States Army, he told these officers a fabrication and tissue of lies.

He has also testified --

A May I ask, are you quoting from some testimony?

MR. GRAY: Just a minute, please.

MR. GARRISON: Mr. Chairman, I want to object in the strongest terms to the form of the question which counsel has put. I think it is impossible to present to this witness the questions about the Chevalier incident without really

thoroughly going into the whole case and incident in all its ramifications. I think the question gives an utterly false summation of what actually happened in the total Chevalier incident which is the only way that it can be looked at.

MR. ROBB: Mr. Garrison can go into it if he wishes. I think I have the right to put the question to the witness in the form of an assumption, if not otherwise.

MR. GRAY: I take it you are objecting to the question, Mr. Garrison?

MR. GARRISON: I am objecting to any question to this witness that tries to put to him the Chevalier incident without going into it in the kind of shape that the matter has come to this Board. It involves the whole question of his relations with Chevalier, of his initiating the information about Eltenton, of the views of General Groves and Colonel Lansdale. This whole thing has a very long and complicated story. To say here to this witness as a fact that Dr. Oppenheimer did this and that in respect to the Chevalier incident seems to me most unfair.

MR. ROBB: Mr. Chairman, there is not the slightest doubt that Mr. Oppenheimer did testify that he lied to Colonel Pash and Colonel Lansdale, not once, but many times, and that his statements --

MR. GARRISON: Mr. Chairman --

MR. ROBB: May I finish. -- and his statements to

those officers constituted a fabrication and tissue of lies, and he knew when he was lying, he was impeding the investigation in progress. There is no question in the world that the record shows that.

MR. GARRISON: Mr. Chairman, this whole business of the so-called lies over and over again was in fact nothing but one story. He told this story to Colonel Pash. He told part of it, that we have reference to here, to Colonel Lansdale. By breaking up the component parts of that story into separate questions, counsel in his cross examination made this appear as if one lie after another had been told.

It lies heavy on my conscience that I did not at that time object to the impression that was trying to be conveyed to this Board of a whole series of lies when in fact there was one story which was told.

MR. GRAY: Let me ask Mr. Garrison this question. Is it clear that the record shows that there was a fabrication?

MR. GARRISON: Yes.

MR. GRAY: I wonder if Mr. Robb can proceed from that point on his question in a way that it would not be objected to?

MR. ROBB: I can't keep Mr. Garrison from objecting, Mr. Chairman. Just so we have no doubt about it, I will read from the record at page 488:

" Isn't it a fair statement today, Dr. Oppenheimer, that according to your testimony now you told not one lie to Colonel Pash, but a whole fabrication and tissue of lies?

"A Right.

"Q In great circumstantial detail, is that correct?

"A. Right."

I submit my question on the basis of that is perfectly fair.

THE WITNESS: I don't know what the question is at this point.

MR. ROBB: Of course you don't.

MR. GARRISON: Mr. Chairman, it really does not convey at all what this was about. The question of whether Chevalier told three men or one, whether Eltenton had a contact at the consulate or didn't, whether the consulate had some microfilm or didn't, all that was of an irrelevant character of what the security officer wanted to find out, which was Chevalier's name. The substance of this whole thing is that Dr. Oppenheimer did not for a long time, and he has regretted and has said so explicitly, revealed the name of Chevalier, which was what the security officers wanted. These incidental details about whether there were three men or one had nothing to do with the problem that the security officers were faced with. I think that is the question that counsel has put to Dr. Oppenheimer in that

form was an unfair one which distorted the record, and I should have objected to it at that time.

MR. GRAY: I would like to say, Mr. Garrison, that frankly the Chairman of the Board does not know what the question is, and I have heard the witness observe that he does not. I don't know what the question is. The argument to the Chairman by counsel in the presence of the witness pretty well established a background perhaps to which you are objecting to in the first place. There has been a discussion of this incident. I should like to ask if Mr. Robb will put his question, and I will give Mr. Garrison an opportunity to object to the question.

BY MR. ROBB:

Q Mr. Dean, I am going to ask you to assume that Dr. Oppenheimer testified before this board that in 1943 he became aware of an attempt at Russian espionage against the atomic energy project, and assume that he further testified that when interviewed about this matter by intelligence officers of the United States Army, he told these officers a fabrication and tissue of lies, and assume that he further testified that when he told these lies, he knew that by telling them, he was impeding the investigation of Russian espionage.

Now, if Dr. Oppenheimer so testified in substance, would that cause you to change your opinion about him?

A As a security risk, then, or a security risk today?

Q Now.

A None. There must have been some reason for

MR. GARRISON: Mr. Chairman, I think the assumptions in his question amount to the same thing as putting to the witness a question as to something which is only a fraction of Dr. Oppenheimer's testimony. One would have to add to that and assume that he initiated the whole matter by bringing to the attention of the security officers that there was a man called Eltenton who ought to be watched because he had a contact and a way of transmitting information.

One would have to assume also that the contact was a colleague at the University of Dr. Oppenheimer's in whom he had complete personal confidence, and ultimately told the name of that friend of his, notwithstanding his belief in his innocence, to General Groves. All of that has also to be assumed because all of that is part of this thing we are talking about.

MR. GRAY: I should like to ask in view of the answer of the witness whether it doesn't make any difference now.

THE WITNESS: I am sorry I answered before you had the opportunity to object.

MR. GRAY: I don't think as far as this witness is concerned the additional fact which then would bring on certain others in fairness in the record, for example, the disclosure

of the name was under orders, and things of that sort, but I think all of that, Mr. Garrison, in view of the answer of the witness --

MR. GARRISON: Mr. Chairman, I will yield on this point. I didn't actually hear the witness' answer.

MR. GRAY: I would gather the witness' answer was favorable to Dr. Oppenheimer. It was so intended, was it not?

THE WITNESS: Yes. My answer was, do you mean a security risk then or now. The questioner said "A security risk now", and I said none.

BY MR. ROBB:

Q I believe you added he must have had a reason for it, is that right?

A I don't know all the circumstances. When I say he must have had, I would say I would think there would be some reasons for it, is a better way to put it.

MR. GRAY: I don't know whether we could get into the question for the reason for it without going into the whole record.

THE WITNESS: I frankly don't know the reasons.

BY MR. ROBB:

Q Would you have thought he was a security risk at that time?

MR. GARRISON: Mr. Chairman, that is a highly hypothetical question based on a complete lack of understanding

what this is about. How can he possibly testify what is judgment was on an incomplete fragment of the record.

MR. ROBE: I thought the witness had some distinction in his mind. I thought it fair to ask him what it was.

MR. GRAY: The witness indicated a distinction about his testimony, and has said that he would find it difficult to address himself to that question without knowing the circumstances, if I understood his testimony.

THE WITNESS: That is it.

BY MR. ROBB:

Q Now, Mr. Dean, you spoke of a conversation you had with Dr. Edward Teller concerning Dr. Oppenheimer.

A Yes. In connection with recruitment?

Q Yes.

A Yes.

Q Could you fix the date of that conversation?

A I had difficulty in fixing the date of it. It would be some time in 1950 or 1951. That I am sure. I can't quite place it, though, because Dr. Teller was in and out of Los Alamos so many times during this period, back at the University of Chicago, out to California, back at Los Alamos, that I don't recall the exact times when he was trying to recruit. It may have been in 1951 at a time when he was trying to get support for a second laboratory. It may have

been that late.

Q Who was trying, sir?

A Teller.

Q Would you tell us the substance of that conversation?

You mentioned it, but I don't think you told us very much about it.

A That particular conversation is only one little piece in a long story of the second laboratory, and I had many with Teller.

Q Did you have many with Dr. Teller in which Dr. Oppenheimer was mentioned?

A I would not say many. His name probably came up in two or three conversations.

Q Would you give us the substance of those conversations?

A I wouldn't want to quote on these. I can give you the tenor or the setting for these conversations. That is about all I can do. Teller undoubtedly felt that Oppenheimer was wrong in his original decision on the thermonuclear program in 1949.

Q You mean to oppose it?

A To have voted against giving it that priority at that time. Teller was an optimist in this field and thought that things could be done. He was very active in recruiting. He told me that he thought he would not get much help out of

Oppenheimer. He may even have intimated that Oppenheimer would discourage people from coming.

Q Did he so intimate?

A Yes, I think that is a fair statement.

Q What did he say about that?

A He said he feared that he might. I said the way to resolve that is to go up and see him.

Q Did he say why he feared that?

A No. If he did, I can't recall precisely why.

Q Did you ask him?

A No, because I knew the two personalities so well.

Two men that had little different views on things and how to do things. I was anxious to keep Teller and I was anxious to get the most out of Oppenheimer. So I said, "Go up and ask Oppenheimer if he will give you some names." Oppenheimer, as I recall it, gave him a list of 10 or 12 names. Then Teller came back and reported that they were all people at Princeton, which would be normal to have most of the names at least picked from the place where he was teaching, and that he was unable to get any of them to come.

Q You said at Princeton; you mean they were all working under Dr. Oppenheimer at Princeton?

A Not necessarily. They were either at Princeton University or the Institute of Advanced Studies.

Q If they were at the Institute, they were under

Dr. Oppenheimer.

A Yes, that is right.

Q And Teller reported back he couldnot get any of them to come?

A That is right.

C Did he say what reasons they had given him for not coming?

A No.

Q Did he attribute their not coming to Dr. Oppenheimer's influence?

A No, he did not. He left an inference that Oppenheimer might have been responsible, but he did not say so in so many words.

C You gathered that from What Teller stated?

A Yes. But I also knew the difficulty of getting anybody at that time to go to work with Dr. Teller at a laboratory which had not been created, and which was completely unplanned, site unselected, the organization for which had not been outlined, and so forth.

Q You mentioned a second laboratory.

A Yes.

C That question came up, I believe, in the fall of 1951, did it not?

A That is about the time.

Q Subsequent to the Princeton meeting.

A Yes.

Q I believe you told us at the Princeton meeting everybody agreed that you had the right gadget to make thermonuclear.

A Well, we hoped we did. It looked promising.

Q In all events, Dr. Oppenheimer thought so?

A That is right. Everyone around the table did.

Q In the fall of 1951, Mr. Dean, the GAC recommended against the establishment of a second laboratory, didn't it?

A I would have to refer to the minutes. I would caution you on this, if I may. When you refer to second laboratory, I think it is well to define the terms, because the second laboratory, so-called, had been mentioned to many people. To some it meant a possible second Los Alamos at a new site in an isolated spot with some 2,000 to 3,000 scientific people in the laboratory, and equipment which would be necessary, which means a capital investment of \$110 million. That is what Los Alamos is. To some people it meant that kind of a lab. To other people, it meant a very small laboratory specializing in nuclear fission, low temperature and metallurgy, and to be rather hastily put together, perhaps in Colorado, a place somewhere near Denver and Boulder. To other people it meant an Air Force laboratory at Chicago, which would be turned into a thermonuclear lab. This had some support from the Air Force people.

To me -- and we debated this at some length -- it had to be if it was ever going to work a place that was already established if you were going to save time. It had to be a place where you had to have a man in there who commanded respect, that Teller would work for and work with, and be comfortable working with. There was only one place that I could finally fasten on that fitted this, and this was to work under Ernest Lawrence at an established place, that is, you had a Radiation Lab. You had another site which we were using for other purposes, some 30 miles away at Livermore and that is eventually what was done.

So when people speak of second labs, and the controversy concerning second labs, I think it is important that in each case to make them define their terms. They meant entirely different things, some of which in my opinion were wise and some of which were not wise.

Q I understand that Mr. Murray, one of the Commissioners, and Dr. Teller, did present to the General Advisory Committee a proposal for a second laboratory in December 1951. Do you recall that?

A Not specifically, but it is quite possible.

Q In their memorandum which I believe was prepared by Dr. Teller, it was stated, "The very rapidity of recent progress" --

MR. GARRISON: Mr. Chairman, may we see this?

MR. ROBB: No, sir.

MR. GARRISON: I am asking the Chairman if we may have a copy of this document to see what is being read from and what the nature of it is.

MR. GRAY: I will have to inquire as to the security.

MR. ROLANDER: The document itself is classified. I think the portion he is reading may be read without disclosing security information.

MR. GARRISON: I submit that the document be shown to Mr. Dean who is cleared for security information.

MR. ROBB: Much of this may be obviated if Mr. Garrison would wait until I complete my question before interrupting me.

MR. GRAY: I would suggest that Mr. Robb read his question and see if you feel that there is any difficulty about it, Mr. Garrison.

MR. ROBB: Mr. Chairman, I might say in general that I had understood that this was not a court proceeding, and I was going along on that assumption. I think it is clear I have refrained from making the slightest objection to any of Mr. Garrison's questions or testimony or anything. I don't care what form Mr. Garrison puts his questions. I assume this is not a court proceeding. But if Mr. Garrison is going to stick on technicalities and turn this into a proceeding according to the strict rules of evidence, I think

we ought to have it understood here and now.

MR. GARRISON: Mr. Chairman, it certainly was our understanding that this was to be an inquiry and not a trial.

MR. GRAY: That is correct.

MR. GARRISON: I do most earnestly say to the Board that the only objections that I have raised with respect to cross examination which at times in this room has taken on the atmosphere of a prosecution than anything else, which I have not though perhaps I should have objected, the only questions I have raised have seemed to me to be of a rather basic character, where a scrap of a document has been read from without either the witness or ourselves knowing what was the content of it. I think if you will examine the Pash and Lansdale transcripts, as I know you will in full, you will find that the things taken out of context have been given not really a fair impression. This to me is rather elementary and not a technical matter.

MR. GRAY: With respect to those documents, of course they will be in the record. The Chair does not know from what document Mr. Cobb is reading or whether it can be made available. I repeat, I suggest that he read the question and if the witness finds it confusing or alien to him, he can so indicate. Then if you object to the question being put, I should like to hear from you.

MR. GARRISON: All right.

THE WITNESS: Could you tell me again Mr. Robb what is the memo purported to be dated, to and from?

BY MR. ROBB:

Q It is a memorandum from Commissioner Murray and Dr. Teller to the GAC. What I am going to do is ask you if you recall this was the position those two gentlemen took. If you don't, that is the end of it. I am advised that they stated in their memorandum: "The very rapidity of recent progress is evidence of potentialities which have been neglected for years, and which will not be fully exploited unless a new laboratory is established."

Do you recall any such argument as that being made for a new laboratory?

A There were many arguments along this line, and it is quite possible that some such thing was said. I am sure that the matter came before the GAC in one form or another. It is consistent that Tom Murray and Teller should be for a second laboratory of some kind because they both felt very strongly about it, as I did, as a matter of fact, but it was a question of where, when and who.

Q The second lab which Teller and Murray were for was the second lab to work on the thermonuclear, is that right?

A This is not clear. Perhaps the document may clear it up as to what kind of lab they are talking about at that point.

Q What is your best recollection about it, sir?

A You see, there are two kinds of labs you could have to work on the thermonuclear. One is an across the board laboratory such as Los Alamos, with all of its departments: a test division, physics division, a chemistry division, a metallurgical division, and all the other divisions which make an integrated laboratory. This is one way, and perhaps this is the best way to have a thermonuclear laboratory if you had the time, because so many of the problems that touch on fission bear on fusion. Some of our current gadgets get much of their energy from the fission process as well as the fusion process. So theoretically if you had time and money and everything, you would build another Los Alamos.

We didn't feel we had that. I don't know whether this particular proposal was that broad or whether it was the kind of proposal that Teller and I talked about several times, which was simply a very specialized laboratory emphasizing low temperature work and some metallurgy. That is why I think you have to define your terms on this. If there is anything in the document which describes what type of lab at that point, then I can do it. But just a second lab, with all the labs we had at that time, was --

Q In any event, Mr. Dean, did there come a time when the General Advisory Committee did take a position on the establishment of a second laboratory for whatever purpose?

A Yes, I believe they did. I cannot recall at this moment, and I wish my recollection could be refreshed by some document, what the issue was before the GAC at that time. If it was an across the board, another Los Alamos, I am sure they said no to it, because I do recall many discussions saying who would you get to run it? Where would you recruit the men who knew about weapons, who were all at Los Alamos at that time except a few people in specialties at some of the universities, such as Ohio State, which had a very strong low temperature group and so forth. But virtually all the people that would contribute to this would be people who were working for us in the weapons lab with a few outsiders. So I am sure that the GAC at that time, however the issue was presented to them, concluded that just didn't make sense.

Q Do you remember when that was?

A I don't really. It could have been either the fall of 1951 or all the way through 1952, because it seems to me it was a matter --

Q Did there come a time --

MR. GARRISON: Could we have the date of that memorandum?

MR. ROBB: This memorandum is a compilation of memoranda, but the particular memorandum I was referring to was prepared 19 December 1951.

BY MR. ROBB:

Q Mr. Dean, did there come a time when you yourself as Chairman of the AEC wrote to the Joint Congressional Committee on Atomic Energy respecting the establishment of a second laboratory?

A I am sure there must have been, but I don't have the documents.

Q Do you recall when that might have been?

A If you will give me some hint as to what I said in it, I could perhaps time it.

Q Frankly I don't have your entire letter, but I will try to give you a hint.

A All right.

Q I don't know whether this is classified or not. Is it, Mr. Rolander?

A I did write a letter on this whole thing on the second lab at one time. Just what must be done about it, and how to do it, and so forth. But it seems to me that was internal.

Q I am told I can read this.

"January 9, 1952." Does that accord with your memory?

A No, I doesn't, but go ahead. We will get the substance.

Q "The creation of a dual laboratory such as Los Alamos would dilute scientific talent and introduce difficult problems of coordination. Further, because of the

disassociation of talent and effort between two laboratories, the rate of progress would be reduced.

"We further feel that the divisions of talent between Los Alamos and a competing laboratory would at this time retard rather than accelerate the development program. Scientists of the caliber necessary to man and administer another laboratory for the prosecution of the development programs similar in scope to Los Alamos are limited in number."

Do you recall something about that?

A Yes, that would be my view today.

Q That was a fair statement of your position at that time?

A Yes. If you are talking about another Los Alamos, and I think I kept saying such as Los Alamos all the time.

Q Where had you received your information as to the availability of scientists necessary to man another laboratory?

A This I had to live with everyday.

Q Had you obtained some of it from Dr. Oppenheimer?

A I don't recall. We may have had conversations, but you can be sure that I also talked to all of the top scientists about this topic. This would be Von Neumann and members of the Commission like Smyth. It would be Dr. Rabi, who was quite helpful in recruiting a few people for us. It certainly would not be attributed to one man. This was something you

had to keep on top of all the time.

Q Do you remember subsequent to that, I think in February 1952, when the General Advisory Committee again recommended against the establishment of a second laboratory?

A I don't recall that specific date, but it would not be inconsistent with what I know, that they took a position against another Los Alamos.

Q Did the General Advisory Committee ever recommend in favor of a second laboratory of whatever kind, Los Alamos or anything else?

A I reported eventually -- I can't say this was my solution, undoubtedly some of the other Commissioners helped with it -- my idea was, finally after this had all been worked out, that if you were going to have a place where you could put Teller and some of the other people to the best use, and if they were not at Los Alamos, the best place was under Dr. Ernest Lawrence out on the West Coast. I did not quite know what the shape of this laboratory was going to be when it first started out.

Q Excuse me, Mr. Dean. I asked you whether or not the GAC made any recommendation, not what you said. What the GAC did.

A About the second lab?

Q Yes.

A If by the second lab you mean the Berkeley --

Q Any kind of lab.

A They certainly did not frown on putting Teller out under Lawrence, and that is what the second lab as it turned out to be was.

Q When did that take place?

A This took place, I would say, about a year after the spring of 1951 shot. I fix that date because the men who went out from Lawrence's lab -- I am sorry I have forgotten this man's name -- Dr. York went out and did some tests in the spring of 1951 on the shot that dealt somewhat with thermonuclear processes. They came back, quite an equipped group of able young men. Here was a nucleus, and it happened to be in Lawrence's lab. You could put Teller in there. I recall we put this to the GAC and everybody felt that it was fine. We had found a place where Teller was happy and could work. I think this was the reaction.

Q About when was that, do you remember?

A I say I think this must have been about a year after the shot in the spring of 1951, which would put it somewhere over perhaps May of 1952.

Q Where was that place that Teller worked -- Livermore?

A That is where he was put to work, yes, sir.

Q Was there an establishment set up there?

A There had been an establishment there before.

That is another attractive thing about it. It had some

buildings. We had some barracks. We had a big armory that we could use immediately. We got some instruments in very fast. It recruited very rapidly under Lawrence, York, Teller.

Q Did you expand those facilities substantially?

A Yes, they were expanded very fast.

Q Did you spend a great deal of money on it?

A We spent, I think perhaps -- I could not give you the dollar figure -- I imagine something like \$11 million -- No, I don't dare risk a figure.

Q In other words, it became a very substantial establishment?

A Yes.

Q I believe you said you had no difficulty in recruiting for it.

A We were recruiting an entirely different group at this point. We were recruiting men for that laboratory, I would say practically all of who came immediately out of school. They were young Ph. D.'s and some not Ph. D.'s. We did not get in that laboratory any of the people, as I recall, that we originally thought of as being available for use on a thermonuclear project, like Seitz -- oh, the names slip me. None of those people went to Berkeley. What they did was under Lawrence's administration, with Teller as the idea man, with York as the man who would pick up the ideas and a whole raft of young imaginative fellows you had a

laboratory working entirely -- entirely -- on thermonuclear work.

Q That laboratory was devoted entirely to thermonuclear?

A Yes, but one thing that must not be forgotten is that -- throughout the whole second labthing -- may I elaborate here on a background?

Q Go ahead. I am not sticking to the rules of evidence.

A One of the big problems of setting up a second lab and what kind of a lab was this, was always this: The morale of Los Alamos. Los Alamos, let us <sup>not</sup> forget this, is the laboratory which has been responsible for all of the research in the development of our A bombs, and all of the research and development until recently on the thermonuclear weapons. They have all come out of Los Alamos. I always feared and many others feared that if you made any drastic move which struck at Los Alamos morale, or if you inferred for one moment that they were not working their hearts out, because believe me, they were proving it with their results, you had a real problem in this weapons development field. That was one of the touchy things about setting up a new laboratory. Who was going to man it. What kind of a lab would it be, and what would it do to Los Alamos? That was the big fear I had.

Q Mr. Dean, when you did set up this laboratory at

Livermore --

A It worked out very well.

Q It didn't impair morale at Los Alamos?

A No. Los Alamos rolled very fast as it always has rolled. I think it worked largely because of Teller getting along very well with Dr. Lawrence. These things are a question of human relations. They got along extremely well.

Q In fact, Mr. Dean, wasn't there a healthy spirit of competition between Los Alamos and Livermore after you set up Livermore?

A I don't know it produced any more weapons, but there probably was a good sense of competition.

Q And you have already said you had no trouble wif getting personnel.

A Not of the type I described. These were not the specialists that we wanted to get in the early days for the real rush. Very few of those ever came. Those people never went to California later on.

Q How long would you say that the discussion went on before you finally established that lab at Livermore? How long did this discussion about establishing a second laboratory, whatever you want to call it, go on -- a year?

A It could have been a year, yes. In the meantime, however, Los Alamos was doing the work and that is what we are testing today in the Pacific.

Q Is that laboratory at Livermore independent of Los Alamos, or was it?

A Yes, it is independent except that you have to have a very close liaison for test schedules and everything else.

Q I understand that.

A Very close relations. But it is independent of Los Alamos. It should be pointed out that the University of California is the contractor for Los Alamos, and the University of California is also the contractor to the Commission for the Livermore lab, but only in that sense are they related.

MR. GRAY: Let me interrupt. How much longer do you think you will take?

MR. ROBB: Probably ten or fifteen minutes, maybe more, depending on Mr. Dean.

(Discussion off the record.)

BY MR. ROBB:

Q Mr. Dean, I have in my notes that you testified that all expansions of the atomic program were blessed by the GAC beginning in 1949. You were not thinking about the second lab in that connection, were you?

A No. When I speak of expansion programs, I am speaking of the erection of facilities with which to make bombs, and that is either plutonium or U-235 for the most part.

Q You mentioned Dr. Oppenheimer's attitude on Project Lincoln. What was the project to discuss the defense of the continental United States, was it?

A Yes, I believe that is a fair description. This was not done under the auspices of the Commission, and I was not close to Lincoln. I just read the report when it was finished.

Q What was done under the auspices of the Army?

A Somewhere in the Department of Defense. Which agency did it, I don't know. Perhaps Air Force.

Q Did you learn what theory Dr. Oppenheimer espoused in that connection?

A I would hate to be examined on the Lincoln report. I really don't have a good recollection of it.

Q Do you recall -- if you don't you can say so, of course -- do you recall whether or not he espoused what might be described as a Maginot Line type of defense?

A I don't know what Maginot Line means.

Q I mean a fixed defense.

A No. I mean does it mean in terms of radar defense?

Q No, a fixed defense as distinguished from a strong offensive striking force.

A I can't say.

Q You don't recall?

A I just don't recall.

Q You mentioned Dr. Oppenheimer's connection with the

long range detection program. Were you familiar with that?

A Oh, yes.

Q Was that done under the auspices of the AEC?

A Strictly speaking it was AFCAT.

Q May I interpose here, Mr. Dean, I am reminded that if you get into classified material, would you be good enough to indicate, so that we can take the appropriate steps?

A I won't consciously do it. Sometimes I have a question because these things change from day to day. Why don't we just call it Air Force.

MR. ROBB: This has been gone into on direct examination, and I would like to ask some questions about it.

MR. GARRISON: I was not under the impression I had.

MR. ROBB: Yes. Didn't you say something about Dr. Oppenheimer's connection with the long range detection program?

THE WITNESS: In this one instance. I stated he was called back in the fall of 1949 to make an appraisal of the Russian bomb.

BY MR. ROBB:

Q And you told something about what his appraisal was, didn't you?

A That they had shot one.

Q I want to ask some questions about that.

MR. ROBB: I am told that these questions will involve confidential classified material.

MR. GRAY: In that event, we will have to excuse counsel and anyone else who is not cleared for the disclosure of classified material.

MR. GARRISON: Is the classification officer clear that this has to be answered only off the record?

(Discussion off the record.)

BY MR. ROBB:

Q Mr. Dean, do you recall that there were three methods of long range detection which were discussed at that time.

MR. BECKERLEY: I don't see how one can get into this without disclosing information presently considered by the Department of Defense as classified.

MR. GRAY: I am sorry, Mr. Garrison; you will have to be excused, although Dr. Oppenheimer will remain.

MR. GARRISON: I assume that this has relevance.

MR. ROBB: I would not ask the question if I did not think so, Mr. Garrison.

(Counsel left the room.)

(The following portion of transcript, pages 1014 through 1016, is classified and contained in a separate volume.)

(Counsel for Dr. Oppenheimer returned to the room.)

MR. GRAY: I think counsel for Dr. Oppenheimer should know that in the judgment of the Chairman of the Board -- I would ask the other Board members to listen to this -- nothing transpired of consequence in absence of counsel. Do you agree?

DR. EVANS: I do.

MR. MORGAN: I do.

MR. ROBB: The witness said he didn't know much about that subject.

MR. GRAY: That is correct.

BY MR. ROBB:

Q Mr. Dean, you testified somewhat about conversations you had with Edward Teller about Dr. Oppenheimer, did you not?

A As to recruitment, I think so.

Q I have the impression that Dr. Teller was inclined to be critical of Dr. Oppenheimer in those conversations, is that right?

A The best I can recall is the inference he left from what he said that he feared that Oppenheimer would not be helpful in recruiting men for him.

Q That is what I thought you said. Didn't you have any conversations with other nuclear physicists who were also critical of Dr. Oppenheimer because of Dr. Oppenheimer's attitude on the thermonuclear?

A I can recall three people and I would urge you very much to have them in front of you as witnesses and for the Board to call them. One would be Dr. Ken Pitzer -- I say three, and I can't recall them -- I would certainly say Teller. Those were about the only two.

Q Alvarez?

A I never heard Luis Alvarez speak --

Q Lawrence?

A No, no. I don't recall any conversations with Ernest Lawrence about Oppenheimer. There may have been some.

Q You mentioned Dr. Pitzer. What was his conversation about Dr. Oppenheimer, and when did it take place?

A It was not a conversation. It was some letters and a speech he made in which he voiced criticism of the GAC. I think he may have named Dr. Oppenheimer and Conant by name, but it was quite clear he meant these two gentlemen.

Q What was the substance of that criticism?

A It was general -- I think the speech was given to refer to one document -- before some teachers in the Long Beach schools shortly after Pitzer left the Atomic Energy Commission. The general criticism, although he was somewhat specific in certain particulars, was that the General Advisory Committee was not imaginative enough. I remember two or three things that he criticized. One was that they were very conservative. He may have implied criticism of the

Commission as well. I have forgotten this. That is, in setting the standards for the reactors, that we required too much isolation. I seem to recall that he advocated a reactor that would blow up so we would find out what would happen, so we would finally know.

There were other items in the speech that were critical. I don't recall any of them in the weapons field, however.

Q Critical of whom?

A GAC.

Q That would include Dr. Oppenheimer.

A Yes. He undoubtedly meant Oppenheimer, as I read it.

Q You said that he suggested that the Commission was requiring too much isolation on your reactors.

A That is right. I remember specifically he mentioned the Wahluke Slope, which is a large area of sagebrush on the other side of the Columbia River from the Hanford works. He thought we should have completely opened up the Wahluke Slope to irrigation and therefore farming and therefore to people. We were far too cautious in having a safe area around reactors.

Q Was his suggestion that by locating reactors so far out in the wilderness you were making it difficult to get personnel?

A No.

Q Then why did he object to putting reactors out in

wilderness?

A He thought the day was coming very fast when you ought to be thinking about central station power plants. If you are going to get in that region, you ought to have them down near the middle of town. If we took undue safety measures, we were far too cautious.

Q Did any scientist ever suggest to you that while you were on the Commission that you were putting your laboratories and reactors too far away, way out in the woods, so you couldn't get people?

A No, not to get people, but that we were just unduly safe and we required too much land. We had some 200,000 acres in Idaho and the same at Hanford.

Q Mr. Dean, what I was trying to get at, why did it make any difference to a scientist if you had ten acres, 10,000 acres or 10 million acres?

A I think Pitzer at that time was arguing that we were far too cautious in our safety standards -- far too cautious. That was the general gist of his criticism. His speech is available. He wrote in some other periodical. I can't place it.

Q Now, Mr. Dean, you testified that you read what you described the file on Dr. Oppenheimer.

A The then file.

Q That was the Atomic Energy Commission's clearance

file?

A Yes. It was a collection of all FBI reports and things that came in.

Q How many volumes was it?

A I don't recall.

Q One?

A I have no idea. I have no idea whether it was one or two or three.

Q How long did it take you to read it?

A I have no idea.

Q An hour or two hours?

A I just don't recall. I have no idea. I may have taken it home. I have forgotten.

Q Did you read any files of the Manhattan Engineering District?

A Yes. I recognized when I saw this list of derogatory information many things that were in that file.

Q In that file?

A Yes.

Q Where did you get that file?

A From our security officers, as I recall.

Q It was in your file?

A In the shop.

Q You are sure about that?

A Yes, it was.

Q If I told you that file had been over at the FBI since 1946, would that change your answer?

A It would not, because that is not the file I read. I read the file, if you are imputing to me -- or suggesting that I did not read a file on Dr. Oppenheimer, including the early derogatory, you are wrong.

Q Of course you had a file. I am trying to find out which one you read.

A This I couldn't tell you.

Q You don't know whether you read the Manhattan Engineering District files or not?

A I can't recall whether it was so labeled. It had material in it dealing with the earlier days.

Q Yes, those were reports.

A As I recall, FBI reports.

Q Did you see any transcripts of questions and answer interviews with Dr. Oppenheimer?

A I have seen interviews with the FBI in that file.

Q But those were not question and answers, were they?

A As I recall, they were summaries of testimony.

Q You said you, I believe, talked to Dr. Oppenheimer about this Crouch matter?

A Yes.

Q And he told you he had never sat in on any Communist meeting?

A There was a specific meeting that was referred to by Crouch.

Q I know. I have a note here in quotes, "I never sat in on any Communist meeting." Did he tell you that?

A I wouldn't be sure of the exact words. What he did tell me was that he never sat in any meeting such as this that Crouch had talked about.

Q Did you ask him whether he had ever been to any Communist meeting?

A I don't recall.

Q Would that have been a natural question to ask him?

A It might have been.

Q But you don't recall whether you did or not?

A I don't. I was dealing entirely with new evidence which came up in the Crouch episode.

Q Yes.

A That is all I interrogated him on.

Q But you were undertaking to evaluate him as a security risk, weren't you?

A I had to do that every day.

Q As a part of that evaluation, wasn't it important to you to know if he had not attended the meeting described by Crouch, whether he might have attended the other similar meetings?

A It was not particularly important to me to know

what kind of meetings he attended in 1941. I had known the man 11 years before.

Q As far as you were concerned, he might have attended a dozen Communist Party meetings in 1941?

A I had no evidence from the file.

Q But you said it was not important to you what meetings he attended in 1941, is that right?

A It certainly was not important to me at that time because the only question in my mind was, is Crouch telling the truth about a specific meeting.

Q That is what I am getting at. If he had not attended the Crouch meeting, you were not concerned with how many other similar meetings he attended.

A That was not the issue before me at that time.

Q Would you answer my question?

A All right.

Q If he had not attended the Crouch meeting, you were not concerned with how many other Communist meetings he might have attended?

A At that time, no, I was not.

Q Mr. Dean, I will read you the question and answer. I have before me, Mr. Dean, which I received from a reliable source, and having been Washington --

A There are both kinds, reliable and unreliable.

Q You will know that the testimony at the executive

sessions of Congress cannot be released without a vote of the committee, and so forth.

A Yes.

Q - I have reason to believe that the following took place at a meeting of the Joint Committee on Atomic Energy on February 21, 1952. I will read you this and ask you if you remember it, and if you have any comment to make on it.

MR. GARRISON: Mr. Chairman, I make the same objection to reading from documents that can't be shown and looked at. He says he has reason to believe they represent what took place.

MR. GRAY: I would ask counsel whether he can summarize what he understands to be the situation.

MR. ROBB: I will try it that way.

BY MR. ROBB:

Q Do you recall, Mr. Dean, that there was a meeting up there in February 1952, at which you testified?

A I was there about once a week for about four years.

Q That is why I wanted to read this to you to see if it rang a bell.

A Am I supposed to be testifying at this point or someone else?

Q I am just about to read it. As I understand it, Senator Hickenlooper was talking, and you were on the stand, and you stated that "progress had been sudden and remarkable

in the last two years."

Senator Hickenlooper then said, "I might tend to agree with your statement that you made some substantial progress. I mean I may be reckless for not going faster, but the General Advisory Committee in 1949 was against the hydrogen project. A majority of the Commission was against the hydrogen project. If you will read the minutes which you probably have, you will find it stopped on dead center there and never even got started until late 1949, or perhaps I think the Chairman went after them and raised the devil and the committee expressed its thinking we ought to move on that project. But I do think there was an inertia there for a long period of time. I wish to say the lease has not been picked up except in the last couple of years."

"Mr. Dean. This is true."

Do you recall that taking place, or anything like that?

A It might have been.

MR. GARRISON: Mr. Chairman, I think that ending abruptly at this point I have no idea what else Mr. Dean may have added to that.

THE WITNESS: Is there something that follows that?

MR. GARRISON: Or what the next topic of conversation is?

MR. ROBB: Yes. I will read the next:

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THE WITNESS: Is there something that follows that?

MR. GARRISON: Or what the next topic of conversation is?

MR. ROBB: Yes. I will read the next:

"Hickenlooper: So the whole hydrogen project has suffered from an inertia since 1946. Based upon the limitations of the experiments and the knowledge at that time in 1946, we had two or three expositions of the feasibility of this hydrogen project and flat statements from reliable people that in their opinion the hydrogen explosion was feasible based upon what they had learned up to that time. They said there were things they had to prove. That is very true. But there was a complete inertia and the General Advisory Committee was partly responsible for that, and the Commission was partly responsible for that, because both of them by majority vote advised against going into the hydrogen problem."

MR. GARRISON: This is all Senator Hickenlooper?

MR. ROBB: Yes, sir.

"Some of the reasons were put on moral grounds, others were put on the question of feasibility, but there was that inertia, and that has contributed to us being no farther along than we are at the moment . . . ."

BY MR. ROBB:

Q Mr. Dean, was there inertia?

MR. GARRISON: Did Mr. Dean make any comment?

MR. ROBB: No, sir, not that I have here.

THE WITNESS: The full text of the hearing might be enlightening to the Board.

MR. ROBB: I don't have that. I am sorry.

THE WITNESS: I am sure you can get it from the Joint Committee. The word "inertia" is perhaps not the best way to describe a very complicated situation. If I can go back into a little history, and I think this does become important because of these popular charges I have seen of delay in the hydrogen bomb.

MR. ROBB: That is why I wanted to get your views.

MR. GRAY: Let me interrupt again. It is now after one o'clock.

MR. ROBB: That is my last question. It is entirely up to Mr. Dean how long he talks, unless he suggests something in his answer that makes me ask another question.

THE WITNESS: It depends on what you mean by inertia. It was known in the Los Alamos lab and long before the Los Alamos lab, perhaps 20 years before Los Alamos was created, and maybe much before that, that one way of getting terrific amounts of energy was through the fusion process. But no one foresaw a way to do it because you could not get the heat to fuse. There is a story I remember running into when I first went to the Commission about a scientist going to the Mayor of Moscow, I believe, and saying, "If you will give me all the electrical energy that lights the city of Moscow, in one night, I will somehow concentrate this and bring about a fusion reaction." It had

been written about. I don't know how he was going to do this, but that was the idea. It has been written about in popular form. The principle was well known,

But at the end of the war, as you know from history, Los Alamos just like everything else in our defense effort slowed down. The boys came home and literally the scientists went home. It was at a low state of morale. We were working on an A bomb. There was no incentive particularly at this time to develop an H bomb.

The incentive came, it seemed to me, for the first time -- although some theoretical work was being done -- you just don't make an H bomb. You go out and measure the cross sections of various elements and combinations of elements. There is a lot of fundamental work that goes on before you even think of developing a budget.

The incentive came in 1949 to develop the H bomb. "This came almost entirely from the A bomb explosion by the Russians. What do you mean by inertia at Los Alamos? The A bomb program was going. Should you divert your people to an H bomb program at that point? Nobody else did anywhere in our defense establishment. We cut down our Navy, we put it in moth balls and all these things happened because the war was over. You don't get incentives out of a peacetime situation such as you had at the close of the war.

The Russians gave us an incentive to work on

something, and we went to it. The delays or inertia are not realistic. They are not good words to describe what transpired. We never saw anything that really had a chance until the Princeton meeting in June of 1951. We never had a chance.

You will always get some scientists to say, "I think I know a way to do", and you always give him a chance to draw it out and spell it out and interrogate him. But all the competent people in our program, even those enthusiastic for H Bomb program, say, in the spring of 1950,, were pretty blue people because it didn't look like you could do it unless you came up with a new idea.

The new idea came up in the Princeton meeting in June of 1950. I don't know what words you apply to situations like that that are complicated. Inertia probably is not a good word. There was not incentive to do it. There was every incentive to make your A-stockpile strong.

MR. ROBB: One further question is suggested, Mr. Chairman.

BY MR. ROBB:

Q Mr. Dean, do you know anything about an order in December 1952, to move Dr. Oppenheimer's papers back to Washington?

A December 1952? Yes, it was done on my orders.

Q Why was that?

A Because his job had terminated as Chairman of the GAC. I thought that it was only proper that all the papers which Dr. Oppenheimer had in his capacity as Chairman should be brought into Washington. As I recall, I sent up Mr. LaPlante and Mr. Roy Snapp, Mr. Rolander may have gone up, one or two people to inventory those papers and remove from the files the GAC things. We were actually thinking of another facility for the then Chairman, Dr. Rabi, and we were exploring whether it should go to Columbia.

Q When did Dr. Oppenheimer's job as Chairman expire?

A August 1952.

Q He was at that time consultant to the Commission, was he not, in 19 December 1952?

A In December 1952, he was a consultant. I don't know to what extent he consulted, but he was a cleared consultant.

Q Did you move those GAC papers out or did you change your mind about it?

A No, we moved out all those that dealt with that. We did not take things that he had to have as a consultant and he was a consultant at four or five places. None of this was done for security matters, but as a matter of good administration. The papers necessary for the Chairman of GAC we removed because we had a new Chairman.

MR. ROBB: That is all.

MR. GRAY: I have a couple of questions, Mr. Dean, if I may. I am sorry to hold you here.

THE WITNESS: It is all right.

MR. GRAY: I am confused -- not altogether from your testimony -- but I am generally confused about the instructions to the GAC for the October 29, 1949, meeting.

THE WITNESS: I did not formulate those so my recollection is a little hazy.

MR. GRAY: Were you then Chairman?

THE WITNESS: I was not Chairman. I was a member. I went on in May as a member, Mr. Lillenthal was then Chairman. Then the meeting took place in October 1949.

MR. GRAY: From what you say you can't clear up my confusion very much, if you don't know.

THE WITNESS: I might be able to if I saw a document. Is there a document?

MR. GRAY: There is a letter.

THE WITNESS: Usually we write the GAC, Mr. Chairman, in advance of a meeting and we say, "We would like to have your views on so many topics," and it is usually about a page or two page letter. That is customary. I would think that was done in connection with the October meeting.

MR. GRAY: There was a letter signed by an Acting Chairman at one point. I don't recall whether he is to be a witness here or not, Mr. Pike.

MR. GARRISON: I believe so, Mr. Chairman. I have not heard from him.

MR. GRAY: Actually you were not in charge at that time.

THE WITNESS: No, I was not.

MR. GRAY: You said following the Princeton meeting, the members of the GAC, or some of them, if this is a correct quotation, went to great pains to help out in the H bomb program. Do you remember saying that?

THE WITNESS: Yes, they were certainly enthusiastic. It would be hard for me to explain precisely what they did.

MR. GRAY: The great pains is adequate for me. I am trying to identify people rather than effort. Was Dr. Oppenheimer one of those who went to great pains in your judgment?

THE WITNESS: He certainly expressed enthusiasm.

MR. GRAY: I will put my question this way: Did you mean to include him in that earlier statement?

THE WITNESS: Yes, definitely. I never saw a meeting and we had many with more unanimity.

MR. GRAY: This is not a meeting. This is following the meeting. You said in your direct testimony that many of the GAC members present at that meeting helped at great pains with the program and you intended to include Dr. Oppenheimer?

THE WITNESS: I did, yes.

MR. GRAY: This is a change of pace. Do you recall who the security officer of the Atomic Energy Commission was at the time you examined the files, whatever they were, with respect to Dr. Oppenheimer?

THE WITNESS: We had a hiatus in thereabout that time which would be Admiral Gingrich. I am not sure when I had this conversation with Dr. Oppenheimer on the Crouch matter that Captain Waters had taken office or not.

MR. GRAY: I had in mind the time that you examined the files.

THE WITNESS: That is the one I have reference to.

MR. GRAY: I suppose the record will reflect.

THE WITNESS: I just don't recall. The record will reflect who was the security officer.

MR. GRAY: You made the observation that Dr. Oppenheimer was cleared in 1947 by the Atomic Energy Commission.

THE WITNESS: Yes.

MR. GRAY: I am a little confused as to any direct action on that point, although the record may show something to the contrary.

THE WITNESS: The only reason I can say anything about it is that I had occasion to look it up once to make sure about the clearance.

MR. GRAY: It is your recollection --

THE WITNESS: I was not there, but I remember something in the files showing that there had been Commission action in 1947.

MR. GRAY: That is what I was confused on as to specific Commission action.

MR. GARRISON: Mr. Chairman, I have a letter from the General Manager about that, stating that there was official action. I should like to introduce it in the record after lunch.

MR. ROBB: I think you already did.

MR. GARRISON: I guess I did. I think you are right.

MR. SILVERMAN: There is a stipulation on the first day, Mr. Chairman.

MR. GRAY: Mr. Dean, we had an earlier witness before the Commission who testified that never once in his long service in the government did he have any drafts of communications prepared for him, and he never wrote a letter which he had not personally written and so forth. You said that you drafted a letter for the President to send to Dr. Oppenheimer. Did he use the draft?

THE WITNESS: He did.

MR. GRAY: You were asked the question whether you felt that Dr. Oppenheimer today is a security risk, and

your answer was clearly in the negative. There seemed to be no question.

THE WITNESS: That is correct.

MR. GRAY: That is against the framework of the Atomic Energy Commission Act of 1946, the terms of which you are familiar with?

THE WITNESS: Yes.

MR. GRAY: One final question and I am through. At one point you said that there was criticism of the GAC by some scientists and you named one or two.

THE WITNESS: Dr. Pitzer, I think.

MR. GRAY: In that connection you said of course that meant Dr. Oppenheimer. Did you mean to say that meant Dr. Oppenheimer? Did you mean to say it included him?

THE WITNESS: I meant it included Dr. Oppenheimer.

MR. GRAY: I would like to be clear on this point.

THE WITNESS: Yes, I am sorry I left that impression. I know it certainly included Dr. Oppenheimer. It included Dr. Conant and it may have included all of the GAO. It would certainly have included Dr. Oppenheimer. I don't have the document, but that is certainly the impression I had at the time it came out.

DR. EVANS: Mr. Dean, I am somewhat confused, and I am asking for information to clear my own mind, as to what we are doing here. I have been on a number of these committees,

and we had certain qualifications to go by, loyalty, association and character. Let us take loyalty. Just what does that mean?

THE WITNESS: To me?

MR. EVANS: Yes. Does that mean loyalty to your friend, loyalty to your country, or both?

THE WITNESS: No. When I use the term "loyalty" and when I testified that I believed Dr. Oppenheimer without equivocation was loyal, I meant loyal to his country, that he has given very strongly of his time and energies, that he has so far as I have been aware always attempted to come up with the answer to any trouble, and there have been hundreds which were presented to him which were strengthening his country, rather than weakening his country. That is all I mean by loyalty.

DR. EVANS: Associations; do we have to go by that?

THE WITNESS: I think associations definitely must be weighed in any of these things. It is a question of the weight that is attached.

DR. EVANS: I am just asking for information.

THE WITNESS: Yes.

DR. EVANS: It becomes so fogged up in my own mind I don't quite know what I am doing.

THE WITNESS: If you wish my opinion on this, I think associations have to be weighed. I think they have

to be weighed, however, very carefully in the light of the circumstances and the time in which the association was made. I am not sure had I first seen Dr. Oppenheimer as a young man in the late Twenties and early Thirties, and met him in the atmosphere of Berkeley in 1939 and 1940, whether I could clear Dr. Oppenheimer. I feel entirely different about him having watched him closely over a period of four years, and having evaluated quite carefully his service to his country, and certainly to the Atomic Energy Commission. I think the Associations must be weighed in those circumstances.

DR. EVANS: Of course, all scientific people know the value of a man like Dr. Oppenheimer. I am just trying to get these things cleared up so that I can act like an intelligent individual. If a man would be more loyal to his friends than he would be to his country, I don't know where I am.

THE WITNESS: I think Dr. Oppenheimer, if I can volunteer this, the loyalty of which I speak is loyalty to his country. I think that is uppermost. I might even say he might be more loyal to his country than his friends. I am sure he would be because he ranks it higher.

DR. EVANS: I have no more questions.

MR. GARRISON: Mr. Chairman, I realize how late the hour is. Would you indulge me in two questions and that

will be all?

DR. GRAY: Yes.

REDIRECT EXAMINATION

BY MR. GARRISON:

Q I think you said in interviewing Dr. Oppenheimer about the Crouch incident you had no concern -- this was a question put to you by counsel about inquiring into other possible meetings of the past that he might have it. Did you mean by that that you didn't care about past associations?

A No. I didn't mean to leave that impression. The impression I meant to leave was this, that I had no occasion at this time to evaluate anything particularly except this current piece of information. I did take occasion, however, to go back on the file which had already been in the Commission and on which he had been cleared in 1947, and went through it, and I saw this association evidence.

Q You were asked whether you knew well the two personalities of Dr. Teller and Dr. Oppenheimer. This question was asked in connection with Dr. Teller's attempt to recruit men for the project. You have already talked about Dr. Oppenheimer's personality. Would you give us your impression of Dr. Teller's personality, particularly with reference to the problem of recruitment?

A Dr. Teller is a very, very able man. He is a genius. There is no question about it. He has contributed

much in the way of ideas to our weapons development. He is a very good friend of mine and I admire him. He is a very difficult man to work with, as sometimes happens. Dr. Teller did not work well at Los Alamos, and left there on two occasions. I was responsible on both occasions for getting him to go back. I was finally responsible, I think in part, for finding a haven for Dr. Teller, because we needed him. But you can't break up a whole Los Alamos laboratory for one man, no matter how good he is, and that was a problem. I don't want to be too derogatory in my appraisal of Teller, because I could not sing his praises enough as to his contributions. He is not an administrator. I am sure when he went out to recruit there are people saying, "All right, Edward, we will work with you some place, but somebody has to run the show. Somebody has to pick up the papers and take the administrative load." Teller is not that type of person. So I can conceive that Edward would have great difficulty in recruiting people. I think if you will call upon some of the people from Los Alamos, they will give you the same impression. It is not that they don't like Edward. It is not a question of likes or dislikes. It is a question of his personality. You have to find a peculiar environment in which he does his best work.

## REXCROSS EXAMINATION

1

BY MR. ROBB:

Q Was one reason why Dr. Teller left Los Alamos that he felt that not enough emphasis was being given to the thermonuclear?

A I suppose that might be said to be true. He certainly differed with the head of the laboratory, Dr. Bradbury, as to the organization of a thermonuclear setup. I tended to think that Bradbury's judgment on the organization of which he was head was better than Teller's so far as organization went. Yet we wanted Teller in the program somewhere. That was a problem.

Q Dr. Teller did think that not enough emphasis was being given to the thermonuclear, didn't he?

A Yes. Dr. Teller has thought of some other things which were not true.

Q Yes.

A Such as the type of weapon which was thought of in 1949 was a good weapon. We know today it would never have been a good weapon. I admire him for his enthusiasm and optimism and pushing the frontiers of knowledge in order to get some kind of badget, but I am glad we didn't go after that particular weapon.

Q Now, Mr. Dean, the answer to my question was yes, wasn't it?

A State it again.

Q Dr. Teller felt that not enough emphasis was

being given to the thermonuclear?

A Oh, I suppose that is true; not his kind of emphasis.

MR. ROBB: That is all. Thank you.

MR. GRAY: We will recess now, gentlemen.

I would like to thank Mr. Dean for coming before us.

MR. DEAN: It's a pleasure.

MR. GRAY: We will reconvene at 2:30.

(Thereupon at 1:25 o'clock p.m., a recess was taken until 2:30 p.m., the same day.)

MR. MARKS: Mr. Garrison has asked me to say that he had told this panel at one of the hearings last week, which I did not attend, what my part was in this case. Subsequently he consulted with me again, and told me that the conduct of the proceedings was turning out to be a very much more massive undertaking than he had planned for and asked me whether I would help more actively, and I agreed to. He has asked me this afternoon to carry on until he can rejoin the proceedings. He is now taking care of some other business connected with the case.

MR. GRAY: The next witness is Hans Bethe.

Do you wish to testify under oath, Dr. Bethe?

DR. BETHE: Yes, I do.

MR. GRAY: You are not required to, but all the witnesses have. Would you be good enough to stand and raise your right hand, please?

Hans Bethe, do you swear that the testimony you are to give the Board shall be the truth, the whole truth and nothing but the truth, so help you God?

DR. BETHE: I do.

Whereupon,

HANS BETHE

was called as a witness, and having been first duly sworn, was examined and testified as follows:

MR. GRAY: Will you be seated, sir.

It is my duty to remind you of the penalties provided by the United States Code, by the statute known as the perjury statute. I should be glad to read those, if you think it necessary, but I gather you are familiar with them?

THE WITNESS: I don't think it would be necessary.

MR. GRAY: Second, I should like to request that if in the course of your testimony you should disclose any restricted data, I would ask you to notify me in advance, so that we might take appropriate steps if the circumstances require.

I was about to say we have a classification officer present, but we don't, so I would ask you therefore to be careful in that respect.

Finally, I should say to you that the proceedings and record of this Board are regarded as confidential between the Commission and its officials, and Dr. Oppenheimer and his representatives and witnesses. The Atomic Energy Commission will not take the initiative in any public releases relating to these proceedings, and on behalf of the Board, I express the hope that witnesses will take the same view of the matter.

Would you proceed now, please.

## DIRECT EXAMINATION

BY MR. MARKS:

Q Dr. Bethe, will you please identify yourself and give a little account of your professional background?

A I am a professor of physics. I have been a professor at Cornell University since 1935. I have been at Cornell all the time except during the war years when I was absent on war work, including a prolonged stay at Los Alamos Scientific Laboratory.

I am also this year the President of the American Physical Society.

Q You are a member also of the National Academy of Science?

A I am.

Q Are you an American citizen?

A Yes.

Q By naturalization?

A Yes.

Q When did you come to this country?

A In 1935.

Q And where did you come from?

A I came originally from Germany. I left Germany in 1933 because of the Nazi persecutions when I knew that I could not hold office under the Nazi regime. I first went to England and then came to this country.

Q Since the war years have you had any connection with the atomic energy program?

A Yes, I have. I have been a consultant to several laboratories of the Atomic Energy Commission. I have spent most of my consultations for the Los Alamos Laboratory. I have almost regularly spent summers at Los Alamos since 1949, I believe. I have taken off a whole semester in the spring of 1952 to help the Los Alamos work.

Q How would you describe your role, as that of a consultant?

A I am a consultant on matters of theoretical physics. I believe I am one of the chief consultants in theoretical physics to Los Alamos.

Q What was your first acquaintance with Dr. Oppenheimer?

A I first met Dr. Oppenheimer very briefly during a meeting of the German Physical Society at a regional section of it in 1929.

Q When was your next connection with him?

A The next that I remember was in 1940 on the occasion of a meeting of the American Physical Society at Seattle, Washington.

Q What have been your associations or contacts with him since that time?

A I have seen him quite frequently, especially we had a very deep association during the Los Alamos time, during

the war, when he was the director of the laboratory, and I was the leader of the theoretical division of Los Alamos.

Q How often have you seen him since the war?

A I would say an average of perhaps three times a year, some years more, some years less.

Q Have these contacts since the war had anything to do with your official connections with the atomic energy program?

A Yes, many of the contacts had. Some were purely on matters of physics outside the atomic energy program, but many of our contacts have been connected with the atomic energy program, I in my capacity as consultant to Los Alamos, and he in his capacity as Chairman of the General Advisory Committee, not that these contacts were also formal in a meeting of the Advisory Committee, but we often talked about these matters.

Q Dr. Bethe, have you read the letter of General Nichols and Dr. Oppenheimer's reply?

A Yes, I have.

Q How far back does your own familiarity with Dr. Oppenheimer's political associations and activities go?

A I --

Q And what do you know about them?

A I heard about his political inclinations in 1938 from some good friends of ours, Dr. Weisskopf and Dr. Placzek,

who is mentioned in Dr. Oppenheimer's answer letter, and I understood from them that he was inclined rather far to the left.

Q Coming to the work on the atomic bomb, would you tell us briefly about the part that you and he played in the work in this subject before Los Alamos was formed and then subsequently during the Los Alamos days?

A Our association began in 1942, on this matter. Dr. Oppenheimer called together a group of theoretical physicists, to discuss the way how an atomic bomb could be assembled. This was a small group of about seven people or so. We met in Berkeley for the summer of 1942. We first thought it would be a very simple thing to figure out this problem and we soon saw how wrong we were.

Q What about Los Alamos? When did you join the Los Alamos group?

A Between that time and Los Alamos, there first was the time when Los Alamos was being created. It was a very hard task to create this laboratory. Most scientists were already involved in war work very deeply and it required somebody of very great enthusiasm to persuade them to leave their jobs and to join the new enterprise of Los Alamos. I think nobody else could have done this than Dr. Oppenheimer. He was successful in getting together a group of really outstanding people.

At Los Alamos, as I mentioned before, we had very close relations because I was the leader of one of the divisions, one I believe of seven divisions. We met almost daily, certainly at least once a week.

In Los Alamos again I want to say how difficult a job it was and it seems to me that no enterprise quite as hard as this had ever been attempted before. I believe that Oppenheimer had absolutely unique qualifications for this job and that the success is due mostly to him and mostly to his leadership in the project.

Q What were some of the factors that made it so difficult?

A There were many. One was in the technical work itself.

Q I simply wanted to indicate the nature of the difficulty.

A It was that all the time new difficulties came up in different connections, new technical difficulties which had to be solved.

Q Apart from technical difficulties.

A Apart from that, one great difficulty was that scientists are great individualists, and many of the scientists there had very different ideas how to proceed. We needed a unifying force and this unification could only be done by a man who really understood everything and was

recognized by everybody as superior in judgment and superior in knowledge to all of us. This was our director. It was also a matter of character, of devotion to the job, of the will to succeed. It was a matter of judgment of selecting the right one among many different approaches. It was a matter of keeping people satisfied that they had a part in the laboratory, and we all had the feeling that we had a part in the running of the laboratory, and that at the same time at the head of the laboratory somebody who understood more than we did.

Q Was there any notable exceptions to this?

A There were a few notable exceptions. There were people who were dissatisfied. Among them was Dr. Teller.

Q Why was he dissatisfied?

A He had --

Q By the way, am I right that he was on your staff?

A He was on my staff. I relied -- and I hoped to rely very heavily on him to help our work in theoretical physics. It turned out that he did not want to cooperate. He did not want to work on the agreed line of research that everybody else in the laboratory had agreed to as the fruitful line. He always suggested new things, new deviations. He did not do the work which he and his group were supposed to do in the framework of the theoretical division. So that in the end there was no choice but to relieve him of any work in the

general line of the development of Los Alamos, and to permit him to pursue his own ideas entirely unrelated to the World War II work with his own group outside of the theoretical division.

This was quite a blow to us because there were very few qualified men who could carry on that work.

Q Turning to another subject, Dr. Bethe, what was the attitude of Dr. Oppenheimer with respect to the requirements of security at Los Alamos?

A He was very security minded compared to practically all the scientists. He occupied a position very much intermediate between the Army and the scientists. The scientists generally were used to free discussion and free discussion of course was allowed in the laboratory completely and this was one of the reasons for putting it at the remote place. However, many of us did not see sometimes the need for the strictness of the requirements and Dr. Oppenheimer was, I think, considerably more ready to see this need and to enforce security rules.

Q Is that what you mean by occupying a position intermediate between the scientists and the Army?

A That is what I mean.

Q Let me ask you, Dr. Bethe, if you can speak of it, what views did the scientists have about the moral or humane problems that many people have discerned in the atomic bomb

program at Los Alamos.

A I am unhappy to admit that during the war -- at least I did not -- pay much attention to this. We had a job to do and a very hard one. The first thing we wanted to do was to get the job done. It seemed to us most important to contribute to victory in the way we could. Only when our labors were finally completed when the bomb dropped on Japan, only then or a little bit before then maybe, did we start thinking about the moral implications.

Q What did you think about that or what did the scientists generally think about it?

A There was a general belief that this was a tremendous weapon that we had brought into the world and that we might have been responsible for incredible destruction in the future. That we had to do whatever we could to tell people, especially the people of the United States, what an atomic bomb meant, and that we should try as much as possible to urge an international agreement on atomic weapons in order to eliminate them as weapons from war if this could be agreed to by all the major nations.

Q I would like to come back to that subject, Dr. Bethe, but first let me ask you whether you were familiar at the time -- that is, at the close of the war -- with the problems that were posed by the so-called May-Johnson Bill for domestic control of atomic energy?

A I was, yes.

Q Was that bill a subject of interest and discussion at Los Alamos, and if so, in what terms?

A It was to a considerable extent, although not as much as some other laboratories of the Manhattan District. Most of the scientists at Los Alamos were opposed to the May-Johnson Bill.

Q Why?

A It perpetuated Army control which we had felt was rather irksome and work was perhaps not conducive to the best results in research during peacetime. It included a lot of very severe and unprecedented stipulations as to punishments for almost any move a scientist might make. Finally, it seemed to us that it made it very much harder than necessary to achieve international control, which seemed to us the most important aim.

Q Do you know what position Dr. Oppenheimer took on this subject?

A Yes. Dr. Oppenheimer supported the May-Johnson Bill, and he was very much attacked for this by some of his colleagues. I personally did not feel very strongly, by the way. He supported the May-Johnson Bill because he thought that this was the only way to preserve the laboratories as running units to continue the work for the time being, rather than to have an interim during which the laboratories might

disintegrate.

Q Dr. Bethe, I would like to return now to this subject of international control of atomic energy which you mentioned. Did you observe as time went on, that is, from the close of the war during the next couple of years, any change in attitudes on the part of scientists and on the part of Dr. Oppenheimer on this subject?

A Yes, definitely so.

Q Would you speak of that?

A Dr. Oppenheimer was one of the members of the Lilienthal Board which worked out the American plan for international control.

Q What date was that?

A That was in the spring of 1946. I can't put it very much closer. In the early spring of 1946. Then he was an advisor to Mr. Baruch who was the American representative to the United States. At all these times he put a great effort into working out a plan which would give this country some measure of security from future atomic war.

However, the actual negotiations started in the United Nations Atomic Energy Commission and it was soon evident--

Q That would still be in 1946?

A That was still in 1946. It started in June 1946, I think. It was soon evident, at least to Dr. Oppenheimer, that the Russian attitude was very inflexible.

C How do you know that, Dr. Bethe? It was soon evident, you say.

A I have known it as a fact only as of January 1947.

Q What happened then?

A In January 1947, I made a visit to Berkeley to give some lectures, and Dr. Oppenheimer and I had some conversations, -- quite long conversations -- about the fate of the atomic energy control plan. He told me then that he had given up all hope that the Russians would agree to a plan which would give security and in particular --

Q Security to whom?

A To all of us. To us, I suppose, as well as to them. Particularly he pointed out how much the Russian plan was designed to serve the Russian interests and no other interests, namely, to deprive us immediately of the one weapon which would stop the Russians from going into Western Europe; if they so chose, and not give us any guarantee on the other hand that there would really be a control of atomic energy, not give us any guarantee that we would be safe from Russian atomic attack at some later time.

I have heard him talk about this subject quite often, the first time in January of 1947.

Q What were your own views at that time?

A I had not seen things very clearly. I still had considerable hope that international agreement could be

achieved, and I know now that I was quite wrong. In fact, I saw right then that I was quite wrong. I was quite pessimistic at that time, but I thought this was such an important subject that the Russians would finally have to see that it was in their interest, as well as ours, to have a real control plan with some teeth in it.

Q Did your own views change?

A My own views changed, and I think perhaps partly influenced by the discussion I had with Dr. Oppenheimer. I certainly thought that there was not much hope and I certainly agreed that the Russian plan was all that Dr. Oppenheimer had represented it to be.

Q Dr. Bethe, let me go back for a moment. I think you said that you had been told in the late Thirties that Dr. Oppenheimer's, I think you used the phrase "extreme left wing political views. That was between the time when you first met him in 1929 and your later closeness to him?

A Yes.

Q When you again met Dr. Oppenheimer, after this brief meeting that you described in 1929, what were your own observations about his political orientation?

A They were very surprising to me.

Q When would this have been?

A That was in 1940. At the Physical Society meeting in Seattle, Washington, we had a long evening in which

political matters were discussed. This was in late June, I believe, of 1940. It was just after the fall of France, and I felt very deeply that a great catastrophe had happened to the world. At this conversation, Dr. Oppenheimer talked for quite a long time in this same sense.

(Mr. Garrison entered the room.)

THE WITNESS: He told all of us how much France meant to the western world, and how the fall of France meant an end of many things that he had considered previous and that now the western civilization was really in a critical situation, and that it was very necessary to do something to save the values of western civilization.

BY MR. MARKS:

Q Coming back, now, to the postwar period, you told us that you were consultant at Los Alamos after you left Los Alamos. In that connection did you observe what, if any, influence the General Advisory Committee of the Atomic Energy Commission had on the course of events at Los Alamos Laboratory?

A I could observe this to some extent, perhaps not enough because I was not at Los Alamos between January of 1946 and the summer of 1947.

Q Just tell us about the period from 1947 on. What was the influence, if you know of it, of the General Advisory Committee on the course of events.

A I know that the General Advisory Committee always was very helpful to Los Alamos, and that the Los Alamos people repeatedly told me that one could always get support for the best ideas in weapons development at the General Advisory Committee. It was that organization in the government which had the greatest knowledge about these matters, and from what I know about the Los Alamos Work, every important development in weapons which was done at Los Alamos was strongly supported by the General Advisory Committee.

Q From the end of the war to the latter part of 1949, did you have any part in thermonuclear research at Los Alamos?

A Not much. I mainly worked on fission weapons. However, there was some minor application of thermonuclear principles which was worked on at Los Alamos during the summer of 1949, and in which I participated. This turned out very useful later on.

Q After the explosion of the Russian A bomb, was there any change in the character of your work?

A Yes.

Q Would you describe what happened?

A Should I --

Q As to yourself.

A In October of 1949 I had a visit from Dr. Teller at Los Alamos.

Q You were at Los Alamos?

A No, he was at Los Alamos. I was in Ithica. He came to visit me as he was also visiting several other scientists, and he tried to persuade me to come to Los Alamos full time, and to help evolve full scale thermonuclear weapons.

Q Dr. Bethe, there has been some talk in these proceedings about the General Advisory Committee meeting towards the end of October of 1949.

A May I go on?

Q I beg your pardon. I am sorry.

A At the time Dr. Teller visited me, I had very great internal conflicts what I should do. Dr. Teller was presenting to me some ideas of his technical ideas which seemed to make technically more feasible one phase of the thermonuclear program. I was quite impressed by his ideas.

On the other hand, it seemed to me that it was a very terrible undertaking to develop a still bigger bomb, and I was entirely undecided and had long discussions with my wife.

Q When did this occur?

A This was early in October, as far as I remember. It may have been the middle of October, but some time between early and middle of October. What I should do? I was deeply trouble what I should do. It seemed to me that the development of thermonuclear weapons would not solve any of

the difficulties that we found ourselves in, and yet I was not quite sure whether I should refuse.

Q Did you consult Dr. Oppenheimer about what to do and if so, approximately when?

A I did consult Dr. Oppenheimer. In fact, I had a meeting with him together with Dr. Teller. This was just a few days later, I think only two days later, or three, than my first meeting with Dr. Teller. So this would again be a round the middle of October, and perhaps a little earlier. I found Dr. Oppenheimer equally undecided and equally troubled in his mind about what should be done. I did not get from him the advice that I was hoping to get. That is, I did not get from him advice from either direction to decide me either way.

He mentioned that one of the members of the General Advisory Committee, namely Dr. Conant, was opposed to the development of the hydrogen bomb, and he mentioned some of the reasons which Dr. Conant had given. As far as I remember, he also showed me a letter that he had written to Dr. Conant. As far as I remember, neither in this letter nor in his conversation with us did he take any stand.

Q What did you do about the invitation that Teller had extended you?

A About two days after talking to Dr. Oppenheimer I refused this invitation. I was influenced in making up

my mind after my complete indecision before by two friends of mine, Dr. Weisskopf and Dr. Placzek. I had a very long and earnest conversation with Dr. Weisskopf what a war with the hydrogen bombs would be. We both had to agree that after such a war even if we were to win it, the world would not be such, not be like the world we want to preserve. We would lose the things we were fighting for. This was a very long conversation and a very difficult one for both of us.

I first had a conversation with Dr. Weisskopf alone and then with Weisskopf and Placzek together on the drive from Princeton to New York. In this conversation essentially the same things were confirmed once more. Then when I arrived in New York, I called up Dr. Teller and told him that I could not come to join his project.

Q When would this have been, approximately?

A I still can't give you any much better date than before. It was certainly quite some time before the General Advisory Committee meeting. I don't know whether it was two weeks before or ten days before. It may have been three weeks before. I could establish the date if this is important.

Q Since that time, however, you have done work on the thermonuclear program, on the H bomb?

A I have indeed.

Q When did that begin?

A This began after the outbreak of the Korean war.

Q What have you done since then, describing it just in general terms?

A In June of 1950, when the Korean war broke out, I decided that I should put a full effort on Los Alamos work and in particular should work also on thermonuclear weapons. I offered to Los Alamos to do active work at time when I was at Los Alamos, but also when I was at Cornell. This offer was accepted. I have done work with an assistant who I supplied from among my own students. I believe this work has been recognized as contributing.

Q Are you saying that continuously from the outbreak of the Korean trouble --

A Essentially continuously. I worked of course only part time as long as I was at Cornell. Then I was at Los Alamos at more frequent intervals since then. I mentioned before that I spent a whole eight months there from February 1952 to September, which was a critical period in the development of the first full scale thermonuclear test which took place in November of 1952, as you well know.

I also went there at other times during the summer. I went usually for a month in the winter, and I worked in between at Ithica.

Q When you did finally decide in the summer of 1950 to go to work on the thermonuclear program, what became

of the inner troubles that you had previously that contributed to turning down Teller's original offer?

A I am afraid my inner troubles stayed with me and are still with me, and I have not resolved this problem. I still feel that maybe I have done the wrong thing, but I have done it.

Q You have done the wrong thing in what?

A The wrong thing in helping to create a still more formidable weapon, because I don't think it solves any of our problems.

Q During the early part of 1950, that is, after you turned down Teller's invitation, but before you went to work at Los Alamos, on the thermonuclear program, you made some public statements, I believe, in the press. You wrote an article which I believe was published in the Scientific American, and the Bulletin of Atomic Scientists, setting forth your views about the thermonuclear problem.

Would you describe briefly what you regarded as the alternative to going ahead with the thermonuclear program?

A Yes, sir.

Q I am speaking now of the period from the end of 1949 to the middle of 1950.\*

A Yes. I thought that the alternative might be or should be to try once more for an agreement with the Russians to try once more to shake them out of their

indifference or hostility by something that was promising to be still bigger than anything that was previously known and to try once more to get an agreement that time that neither country would develop this weapon. This is enough of an undertaking to develop the thermonuclear weapon that if both countries had agreed not to do so, that it would be very unlikely that the world would have such a weapon.

Q Can you explain, Dr. Bethe, how you reconciled that view just described of wanting to make another try at agreement with Russia, with the view that you described a little while ago in which you expressed the feeling that negotiations with Russia on the A bomb were hopeless?

A Yes. I think maybe the suggestion to negotiate again was one of desperation. But for one thing, the difference was that it would be a negotiation about something that did not yet exist, and that one might find it easier to renounce making and using something that did not yet exist to renounce something that was actually already in the world. For this reason, I thought that maybe there was again some hope. It also seemed to me that it was so evident that a war fought with hydrogen bombs would be destruction of both sides that maybe even the Russians might come to reason.

Q Didn't you feel that there was a risk involved in taking the time to negotiation which might have given the Russians the opportunity to get ahead start on the H bomb?

A There had to be a time limit on the time that such negotiations would take, maybe a half year or maybe a year. I believe we could afford such a head start even if there were such a head start. I believed also that some ways could have been found that in the interim some research would go on in this country. I believed that also our armament in atomic bombs as contrasted to hydrogen bombs was strong enough and promised to be still stronger by this time, that, is, by the time the hydrogen could possibly be completed, so that we would not be defenseless even if the Russians had the hydrogen bomb first.

Q Do you have any opinion, Dr. Eethe, on the question of whether there has been in fact any delay in the development and the perfection of thermonuclear weapons by the United States?

A I do not think that there has been any delay. I will try to keep this unclassified. I can't promise that I can make myself fully clear on this.

Q Try to, will you?

A I will try. When President Truman decided to go ahead with the hydrogen bomb in January 1950, there was really no clear technical program that could be followed. This became even more evident later on when new calculations were made at Los Alamos, and when these new calculations showed that the basis for technical optimism which had existed in

the fall of 1949 was very shakey, indeed. The plan which then existed for the making of a hydrogen bomb turned out to be less and less promising as time went on.

Q What interval are you now speaking of?

A I am speaking of the interval of from January, 1950 to early 1951. It was a time when it would not have been possible by adding more people to make any more progress. The more people would have to do would have to be work on the things which turned out to be fruitful.

Finally there was a very brilliant discovery made by Dr. Teller. That was made in the spring of 1955. It was one of the discoveries for which you cannot plan, one of the discoveries like the discovery of the relativity theory, although I don't want to compare the two in importance. But something which is a stroke of genius, which does not occur in the normal development of ideas. But somebody has to suddenly have an inspiration. It was such an inspiration which Dr. Teller had together with his colleague Ulam, also of Los Alamos, which put the program on a sound basis.

Only after there was such a sound basis could one really talk of a technical program. Before that, it was essentially only speculation, essentially only just trying to do something without having really a direction in which to go. Now things changed very much in the spring of 1951,

In the spring of 1951 after this brilliant discovery there was a program.

Q Dr. Bethe, if the Board and Mr. Robb would permit me, I would like to ask you somewhat a hypothetical question. Would your attitude about work on the thermonuclear program in 1949 have differed if at that time there had been available this brilliant discovery or brilliant inspiration, whatever you call it, that didn't come to Teller until the spring of 1951?

A It is very difficult to answer this.

Q Don't answer it if you can't.

A I believe it might have been different.

Q Why?

A I was hoping that it might be possible to prove that thermonuclear reactions were not feasible at all. I would have thought that the greatest security for the United States would have lain in the conclusive proof of the impossibility of a thermonuclear bomb. I must confess that this was the main motive which made me start work on thermonuclear reactions in the summer of 1950.

With the new principle, I think the situation changed, because it was then clear, or almost clear -- at least very likely -- that thermonuclear weapons were indeed possible. If thermonuclear weapons were possible, I felt that we should have that first and as soon as possible. So

I think my attitude might have been different.

Q One final question, Dr. Bethe. I should have asked you this. I have referred you to the press statements and the article that you published in the late winter and spring of 1950, expressing critical views of the H bomb program. Did you ever discuss those moves, that is to make such statements and write such articles, with Dr. Oppenheimer?

A I never did. In fact, after the President's decision, he would never discuss any matters of policy with me. There had been in fact a directive from President Truman to the GAC not to discuss the reasons of the GAC or any of the procedures, and Dr. Oppenheimer held to this directive very strictly.

Q Did you consult him about the article?

A I don't think I consulted him at all about the article. I consulted him about the statement that we made. As far as I remember, he gave no opinion.

Q On the basis of your association with him, your knowledge of him over these many years, would you care to express an opinion about Dr. Oppenheimer's loyalty to the United States, about his character, about his discretion in regard to matters of security?

A I am certainly happy to do this. I have absolute faith in Dr. Oppenheimer's loyalty. I have always found that he had the best interests of the United States at heart. I

have always found that if he differed from other people in his judgment, that it was because of a deeper thinking about the possible consequences of our action than the other people had. I believe that it is an expression of loyalty -- of particular loyalty -- if a person tries to go beyond the obvious and tries to make available his deeper insight, even in making unpopular suggestions, even in making suggestions which are not the obvious ones to make, are not those which a normal intellect might be led to make.

I have absolutely no question that he has served this country very long and very well. I think everybody agrees that his service in Los Alamos was one of the greatest services that were ever given to this country. I believe he has served equally well in the GAC in reestablishing the strength of our atomic weapons program in 1947. I have faith in him quite generally.

C You and he are good friends?

A Yes.

Q Would you expect him to place his loyalty to his country even above his loyalty to a friend?

A I suppose so.

MR. MARKS: That is all.

CROSS EXAMINATION

BY MR. ROBB:

Q Doctor, when Dr. Teller came to see you in 1949, were

you at Ithica then, sir?

A Yes.

Q And then you and Dr. Teller went down to Princeton to see Dr. Oppenheimer?

A We went down separately, but we met again in Princeton.

Q May I ask, Doctor, why did you pick Dr. Oppenheimer to consult about this matter?

A Because we had come to rely on his wisdom.

Q Doctor, you spoke of Dr. Teller at Los Alamos as always suggesting new deviations.

A Yes

Q It was a new deviation suggested by Dr. Teller which resulted in your success in producing the thermonuclear wasn't it?

A This may be true, and some of his suggestions certainly were extremely valuable.

Q Yes, sir.

A There were other suggestions which turned out to be very much to the contrary. Dr. Teller has a mind very different from mine. I think one needs both kinds of minds to make a successful project. I think Dr. Teller's mind runs particularly to making brilliant inventions, but what he needs is some control, some other person who is more able to find out just what it is the scientific fact about the matter.

Some other person who weeds out the bad from the good ideas.

In the spring of 1951, as soon as I heard of Dr. Teller's new invention, I was immediately convinced that this was the way to do it, and so was Dr. Oppenheimer. I should mention a meeting which took place in 1951, in June, at which Dr. Oppenheimer was host. At this meeting the final program for the thermonuclear reactions was set up. At this meeting Dr. Oppenheimer entirely and wholeheartedly supported the program.

Q Doctor, how many divisions were there at Los Alamos?

A It changed somewhat in the course of time. As far as I could count the other day, there were seven, but there may have been eight or nine at some time.

Q Which division was Klaus Fuchs in?

A He was in my division which was the theoretical division.

MR. ROBB: Thank you. That is all.

MR. GRAY: I have some questions, Dr. Bethe.

Early in your testimony in response to a question from Mr. Marks about cooperation and happy atmosphere -- these were not your words or his -- you said there were certain notable exceptions.

THE WITNESS: Right.

MR. GRAY: You named Dr. Teller.

THE WITNESS: Right.

MR. GRAY: Could you name certain other of the notable exceptions?

THE WITNESS: I can recall only one person. That was Dr. Felix Bloch, who left the project after some time and went to a radar project instead. He was at Los Alamos only for a short time. Otherwise, I can't recall any exceptions.

MR. GRAY: This is a matter of information, perhaps. I was interested, however, in one of your objections to the May-Johnson Act, on the ground, and I think I use your words, "that it provided punishments for almost any move a scientist might make."

THE WITNESS: Right.

MR. GRAY: What do you have in mind.

THE WITNESS: When you read the document -- I am afraid I didn't read it from beginning to end -- the thing which was most conspicuous to us was that that listed a large number of things that were to be considered a security violation and set down very harsh penalties, unprecedented penalties, I believe, for these.

MR. GRAY: What kind of things were the penalties imposed for? That is what I am trying to get at. I am not familiar, I am sorry to say, with the provisions.

THE WITNESS: I don't know that this is terribly important, and I should not insist on it too much. It said if you betray some secret -- if some secrets leak out by

negligence, then you go to prison for ten years. If you do it with the intent to hurt, the United States, the penalty is death, and so forth and so on. The things that were mentioned were definitely things that should be punished. It only seemed to us that the punishment was perhaps a little harsh and a little too much emphasized in the bill.

MR. GRAY: I don't want to pursue this too far, but your characterization of these actions as almost any move a scientist might make, you mean any reasonable move which by carelessness might be the equivalent, I suppose?

THE WITNESS: No, it would require much less than that. It would require an act of slight negligence rather than any callousness.

MR. GRAY: Yes.

THE WITNESS: But I don't wish to insist on this.

MR. GRAY: Very well. Also in response to a question from Mr. Marks you said that you were very much surprised in 1940 soon after the fall of France -- I believe you said this -- Dr. Oppenheimer's political reorientation -- the phrase is mine, not yours -- and you cited as an example and you cited as conviction that an extraordinary effort needed to be put forth to save western civilization.

THE WITNESS: Yes.

MR. GRAY: I believe you were asked that question by Mr. Marks in the context of Dr. Oppenheimer's earlier very

left wing views.

THE WITNESS: Precisely.

MR. GRAY: Other than the fall of France were there indications in his conversation -- the long conference you had -- in 1940 which would indicate a change in these extreme or very left wing views?

THE WITNESS: I am not sure that I recall any other motivation. I am sure that the fall of France was uppermost in all our minds, and that this was the dominant theme. I don't know what other motivation Oppenheimer went through to change his mind.

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MR. GRAY: I really was not concerned so much with motivations as whether you sensed a modification of the extremeness of his leftwing views.

THE WITNESS: I certainly did not. It did not come up even as a part of the conversation that his views were leftwing at this time. That is, as you recall, this was in the time of the Russo-German Pact. I don't believe the Pact was mentioned. Maybe it was. If so, it must have been mentioned in the same context, in the same spirit as the fall of France, namely, that it was a most deplorable thing. There was nothing in the conversation which indicated any leftwing orientation at that time. In fact, the opinions of experts were the exact opposite of the party line.

MR. GRAY: May I again refer to your conversations with Dr. Teller and with Dr. Oppenheimer in October, 1949, at which time you were deeply troubled as to whether you should go back or should again work -- what was it -- at Los Alamos?

THE WITNESS: Right.

MR. GRAY: Did you get far enough along in your thinking, Dr. Bethe, and in your discussions with Dr. Teller, to talk in terms of what the salary might be if you went back to Los Alamos?

THE WITNESS: We did discuss this. Even though I was not at all decided whether I wanted to go, I wanted

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to discuss the things sufficiently so that at least external circumstances would be reasonable if I went.

MR. GRAY: So that at the time your mind was at least open to the point that the shape and form and nature of the job was interesting at least.

THE WITNESS: Right.

MR. GRAY: May I ask, then, how long after this conversation with Dr. Teller in which salary and other conditions were discussed was it that you began making speeches and writing the bulletins opposing work on the hydrogen bomb, or is that a clear question?

THE WITNESS: That is perfectly clear. This was three months later.

MR. GRAY: Three months later?

THE WITNESS: Three months and a little.

MR. GRAY: Mr. Marks asked you a question about --

THE WITNESS: May I make one more remark in this connection?

MR. GRAY: Yes, indeed.

THE WITNESS: During the time when the government was in the process of deciding whether to go ahead with the program, I felt and I think all scientists felt that we must not make speeches. This does not mean that we held any different opinion. But during this time it was a secret deliberation of the government and it was not in the public

3 domain and we therefore restrained ourselves from expressing our opinion -- meticulously -- in any way.

MR. GRAY: So that your speeches in opposition came after the President's decision?

THE WITNESS: They came after the President's decision. They could not come before the President's decision. This does not mean that the President's decision changed my mind in any way.

MR. GRAY: I think you made it clear in your testimony that you feel that following the Presidential decision there was no delay in the development of the hydrogen bomb.

THE WITNESS: Yes.

MR. GRAY: Can you say the same thing about the period from 1945 until January, 1950?

THE WITNESS: This is a very difficult question. I think one would have to take the periods apart. I believe, let me say in the beginning, first of all that there was in the end no delay.

MR. GRAY: You mean taking the years from 1945 to 1950, or whenever it was?

THE WITNESS: 1952.

MR. GRAY: That there was no delay?

THE WITNESS: Yes. One of the ingredients in may saying so is that in order to have a successful thermo-nuclear weapon you first need to have an extremely good

4 fission weapon. You cannot make a success of a thermo-nuclear weapon without that. As you know, the fission weapon is used as a trigger to provide the heat in the thermo-nuclear weapon. This is public knowledge. Anything beyond that I cannot say. It is necessary to have extremely good fission weapons and what Los Alamos Laboratory did in all the time until 1950, early in 1950 and indeed later, too, was a continuous and very spectacular improvement in fission weapons, so much so, as President Eisenhower announced in his United Nations speech, that the power of the fission weapon has increased 25 fold since Hiroshima and Nagasaki.

Therefore, this work was all in the direction that was necessary to bring success in the thermo-nuclear program.

Now, then, in the first period from the end of the war to the beginning of the AEC, that is, to January of 1947, Los Alamos was in a state of disintegration, and Los Alamos, just like our Armed Forces, was declining in strength. All of us wanted to go home just as all the boys from overseas wanted to go home, and as their mothers wanted them to come home. So everybody wanted to home.

Also, we wanted to give a chance to the international organizations. This changed completely when the AEC took over in the beginning of 1947, and from then on really a strong program in weapons development was started.

I should say in all fairness that in all this program Dr. Teller played a very important roll and did not show any deviations, as I criticized during the war time period. Even so, it needed sometime to build up the strength of the laboratory.

I was impossible for the laboratory to do very many things at the same time in 1947 or 1948, let us say. All the same, some research was going on all the time on some phases of thermonuclear reactions.

I mentioned before that one particularly promising, although minor application of such reactions, was actively worked on in the summer of 1949 when I was there, and it had then been worked on for sometime. It actually turned out that this was more useful in the end than would have been a concerted attack on what was then believed to be the main subject.

MR. GRAY: You think that the demonstration of genius on the part of Dr. Teller in 1951 -- I know I am asking a question that you can't answer, but I will ask it anyway -- do you think if the GAC in 1947, when it was constituted, had concluded as the President concluded in January, 1950, that it is possible that Dr. Teller's stroke of genius might have come sooner than 1951? It had no relation to the atmosphere, facilities and those things. I know this is a very difficult question.

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THE WITNESS: Yes.

MR. GRAY: If it is not clear to you, I am addressing myself to the point that it has been said in many places that the attitude of the GAC did in fact delay successful work. I believe this has been said. You are familiar with that.

THE WITNESS: I am familiar with that.

MR. GRAY: I am trying to address myself to that point.

THE WITNESS: It is awfully hard to answer. It is true certainly that a stroke of genius does not come entirely unprepared and that you get ideas only on the subjects that you are working on. If you are working on other subjects, let us say fission weapons, you probably won't have any inspiration about thermonuclear weapons. It is true on the other hand that two quite important suggestions or discoveries were made on thermonuclear problems during the time when Los Alamos was not actively working on these. I cannot name them in an unclassified session.

One of them was the thing that I mentioned repeatedly, the minor application, as I call it, of thermonuclear principles. I think it is quite obvious that only when there is a concerted effort can there be the atmosphere in which you can have big ideas. Whether we would be farther ahead or less far ahead, I don't know.

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MR. GRAY: I was aware that was a difficult question. I have only two more, Doctor.

You testified that at one period you were hoping that it might be possible to prove that thermonuclear weapons were just simply not possible.

THE WITNESS: Yes.

MR. GRAY: I assume, then, that you were hoping that if they were not possible in this country they could not be possible in the USSR?

THE WITNESS: Precisely.

MR. GRAY: Did you have any reason to hope that the Russians were not taking a contrary view to yours? You were hoping that it could not be possible.

THE WITNESS: Yes.

MR. GRAY: Would it be unreasonable to suppose that the Russians might have been taking the contrary view?

THE WITNESS: That they were hoping that it was possible?

MR. GRAY: Yes.

THE WITNESS: I am quite prepared to assume that, but I don't know.

MR. GRAY: So that there was a double hope that we couldn't do it and also that they couldn't, but we had no basis for believing that they would not make every effort, I assume?

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THE WITNESS: That is true. In the times when everybody was very pessimistic about the outcome of our own effort, that is, in the year 1950 essentially, I was often hoping that the Russians would spend their efforts on this problem and that they would waste their efforts on this problem.

MR. GRAY: My final question, I think, relates to Mr. Marks' last question to you.

In the light of your intimate personal acquaintance with Dr. Oppenheimer and within the framework of the Atomic Energy Act of 1946, you have no doubts about him with respect to his loyalty, his character, his discretion, which were the three areas which Mr. Marks put the question to you.

THE WITNESS: Yes.

MR. GRAY: In order to complete the record, because there is another consideration which the Act imposes and that is, associations, would you answer also affirmatively to the question including the test of associations?

THE WITNESS: Those associations that I personally know about I certainly heartily approve. The associations which I mentioned --

DR. EVANS: What was that?

THE WITNESS: I said that --

MR. GRAY: The associations he knows about he would heartily approve.

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THE WITNESS: The associations in the dim past of the late 1930's and maybe early 1940's I certainly cannot approve, but I think they are superseded by a long record of faithful service and that one has to judge a man according to his actions, recent actions, which are, as far as I know, all in the public domain and all perfectly known and open to scrutiny.

MR. GRAY: Thank you.

MR. ROBB: Mr. Chairman, I have a couple of questions but would you rather I save them until Dr. Evans finishes?

MR. GRAY: Yes. Dr. Evans, do you have any questions?

DR. EVANS: Yes. Dr. Bethe, for the record -- we can look it up, but you can tell us -- where did you do your university work?

THE WITNESS: I studied at the Universities of Frankfort and Munich in Germany and got my PHD in Munich in 1928.

DR. EVANS: Have you taken out any patents on these types of weapons?

THE WITNESS: I believe I have a patent or two on Fission weapons. I don't believe I have any on the thermo-nuclear weapons.

DR. EVANS: What are your political views? You are

10 a citizen of the United States?

THE WITNESS: Yes. This is perhaps --

MR. GRAY: Excuse me.

DR. EVANS: Do I have a right to ask that?

MR. GRAY: Perhaps it may be that the witness would be entitled to have a little bit of understanding. I don't know that the question -- excuse me. If the witness objects to answering, he can.

DR. EVANS: Maybe I shouldn't ask this question.

THE WITNESS: I have no objection at all. I have never had any association with a leftwing organization whatsoever. My political views are best described by Adlai Stevenson's views.

DR. EVANS: He is from Chicago.

THE WITNESS: Right.

DR. EVANS: I want to ask you one other question.

Being a normal man and a good man, I take it, do you still in the back of your head have these moral scruples about these things?

THE WITNESS: I do.

DR. EVANS: That is all.

MR. ROBB: I think there are a couple of questions suggested by the Chairman's questions.

MR. GRAY: If you will, I want to see if Mr. Marks has any questions.

MR. MARKS: I have a couple, but either way.

MR. GRAY: Suppose you proceed.

REDIRECT EXAMINATION

BY MR. MARKS:

Q I neglected to ask you one question, Dr. Bethe.  
When was the next time after your meeting with Dr. Oppenheimer  
in 1940 that you saw him?

A I saw him for a day in 1941.

Q When and where was that?

A That was in New Mexico on his ranch on the 24th of  
July, as far as I know.

Q You had some reason for fixing that date?

A Yes. There was a previous case in which Dr.  
Oppenheimer was accused of having attended a meeting in  
Berkeley some time in July. He asked me to establish the date  
of my visit, and I tried to do that. I must confess that I  
came only within two or three days, and the exact date  
was supplied to me.

Q Supplied to me?

A Supplied to me by a friend of Dr. Oppenheimer.  
But I came within two or three days.

Q You mean --

A On my own investigation. I did not --

Q I think you better tell us the whole thing, because  
I don't know it.

A Well, I was asked to find out when I had visited Dr. Oppenheimer so that I could, if necessary, testify to that. I made some searching of my own memory. I could establish a date of the 1st of August when I met Dr. Teller for a summer vacation, and I calculated back that some time in the early twenties of July I had been at Dr. Oppenheimer's ranch.

I furthermore knew the hotel in which I stayed the night after, and I made sure that I could find out from the hotel register what day we had stayed there, if need be, but they were reluctant to do this, because it was some 12 years back. Then before I had any chance to go further into this, I was told that it was the 24th of July.

Q You mean that the hotel register was the 24th of July?

A The hotel register was not searched, but an independent search -- there were other events which took place during my visit -- namely, Dr. Oppenheimer was kicked by a horse. It was possible to establish that date.

Q And you remember that you were there?

A I remember ed that.

Q So when you said a friend of Dr. Oppenheimer's supplied the date, what you meant was that a friend of Dr. Oppenheimer told you what date it was the horse kicked him?

A Right.

Q I think I may have phrased a question ineptly in relation to your speeches and your articles in early 1950. In answer to a question of mine did you say that those statements and articles opposed work on the H bomb program?

A No, they did not. They only deplored that such a thing would be made, and they expressed the hope that we would never use it. The statement said that we were hoping that the United States would never use the H bomb until it was used against us first. I don't know whether that is a good scheme. I think it should be understood as a desperate attempt to reconcile an accomplished fact of the H bomb program, which we did not want to oppose with our deeply troubled conscience.

MR. MARKS: May I identify for the record, in case the Board should wish to refer to this article, so we are sure that we are all talking about the same thing. I have reference to a press release which was reported in the New York Times, Sunday, February 5, 1950, and I have reference to an article that was published in the April issue of 1950 of Scientific American, and a reprint of that article which appeared in the April issue of the same year in the Bulletin of the Atomic Scientists.

MR. ROBB: Do you want to show them to the witness, Mr. Marks?

MR. MARKS: Yes, I think that would be a good idea.

THE WITNESS: Yes, I remember these.

MR. ROBB: I might say, Mr. Chairman, I think those are articles in the file that you have before you.

MR. ROLANDER: The Scientific American article is in the file.

MR. MARKS: Mr. Silverman has suggested that he recalls some reference earlier in the proceeding to a patent that was mentioned relating to thermonuclear devices in which you and Dr. Teller and Dr. Oppenheimer were all involved. Do you have any recollection of that?

THE WITNESS: I am sorry, I don't.

MR. MARKS: That is all.

#### RE-CROSS EXAMINATION

BY MR. ROBB:

Q Doctor, I suppose it is a truism that you don't have ideas about things like thermonuclear weapons on the atomic weapons without working on them?

A That is certainly true.

Q And you really can't tell whether they will work without experiment, can you?

A You can tell pretty well by purely theoretical investigations.

Q But in the last analysis you have to try them out

A In the last analysis you have to try them out. I

think it is a matter of record that the General Advisory Committee has always been strongly recommending tests on atomic weapons.

Q Yes, sir. Doctor, I am a little bit confused about the two periods we have been talking about. One was between the spring of 1946 and I think January 1950, is that right?

A Yes, sir.

Q I am not entirely clear as to just what was going on during that period at Los Alamos in respect to the thermonuclear. I don't mean the technical details, but who was working on it at Los Alamos, and how much work were they doing? Could you help us on that?

A I will try. It was definitely a matter of very minor priority. It was carried on, that is, one line of work was carried on mainly by summer consultants, particularly by Dr. Nordheim. Another line of work was proposed by Dr. Teller. I don't remember exactly when, but it was probably about in 1948. I am not sure. That was worked out quite actively. I would say some 20 per cent or so of the work of the theoretical division went into that from then on.

Q I find in the file here some notation, which I can't vouch for, but perhaps you can tell me whether it is right or not, "That during that period from the spring of 1946 until January 1950, the work being done at Los Alamos on the thermonuclear was being done by Dr. Richtmyer, who

worked for approximately 8 months on the problem.

A Yes.

Q Dr. Nordheim who worked approximately a month, and Dr. Teller, who worked approximately two months, and in addition there were perhaps two or three computers who worked for a full year. Would that sound about right to you?

A This would sound about right for the one development that I spoke of, which I said was done by Summer consultants. I would have thought from my recollection that Dr. Nordheim had worked on it more than that. But on the other hand, it is true that Dr. Richtmyer worked on it. I think this is a fairly good description of what went on on this one development. The other development --

Q Would you wait just a moment? I am told I can not ask you the question. Go ahead.

A The other development -- I am perfectly prepared to later on after we finish the unclassified part, to answer classified questions.

Q We are trying to stay unclassified, and it is quite easy with me, because I don't know much about this technical part of it.

A Yes, sir. The other development which I talked about which I called the minor application of thermonuclear principles was really one of the functions of the theoretical division. That is, of the division which generally was in

charge of doing the thinking, the theoretical thinking before matters were put into the development stage. This, as far as I remember, was supported by the GAC. On this I gave the figure which I mentioned before of about 20 per cent. I know of two people who worked on this, Dr. Langmire and Dr. Rosenbluth.

Q Was that at Los alamos?

A Yes, at Los Alamos.

Q How long did they work on it?

A To the best of my recollection about a year before the fall of 1949. However, I may be wrong.

Q That would be from the fall of 1948 to the fall of 1949.

A Yes, this may be about right. I am afraid I don't remember it in all detail.

Q So you would add those two gentlemen and their period of work to the names and the periods I read you.

A Not only that, but there were several others of less standing involved in this, and I should mention that these two, apart from Dr. Richtmyer, and apart from the head of the theoretical division, are probably the most able members of the theoretical division.

Q One further matter. Do you remember perhaps in May 1952 preparing a history of thermonuclear development?

A I certainly do.

Q For whom did you prepare that?

A I prepared it for Mr. Dean, who was then the Chairman of the Atomic Energy Commission. However, not on his request, but rather to state the history as I saw it, and as most people at Los Alamos saw it.

Q At whose request did you prepare it?

A At my own.

Q Did Dr. Oppenheimer discuss it with you?

A No.

Q He did not talk with you at all about it?

A No.

MR. ROBB: That is all. Thank you.

MR. MARKS: May I ask a couple of more questions?

MR. GRAY: Yes.

#### REDIRECT EXAMINATION

BY MR. MARKS:

Q I would like to be sure, Dr. Bethe, that I understand the sense in which you made the statement about which the Chairman has also questioned you, I believe, that the motivation you had in going back to work in the summer of 1950 on the thermonuclear problem was the hope that you could prove it would not work. Did you mean that you hoped you could prove by argument that it would not work, or that you could discover it as a law of nature in the sense of the theory of relativity or another scientific theory that it

was impossible?

A Hardly quite as conclusively as the theory of relativity, but rather that I could make an argument that the methods that we could conceive of for such development would all not work. That there were laws of nature which doomed such an attempt to failure.

Q Would that process which you now describe of work on which you launched have been an indispensable part of discovering what would work?

A I think so, yes. I don't know whether it was indispensable because Teller dispensed with it. Teller was able to make his invention without having had a conclusive discussion of all the possibilities.

MR. MARKS: That is all.

MR. GRAY: Thank you very much, Dr. Bethe.

(Witness excused.)

MR. GRAY: We will take a recess.

(Brief recess.)

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PH Last Part

MR. GRAY: Dr. Bethe, we have asked you to come back to clear up something for the record which I think needs to be done. Mr. Robb will do it very quickly.

DR. HANS BETHE

resumed the stand as a witness, having previously been duly sworn, was examined and testified further as follows:

FURTHER RECROSS EXAMINATION

BY MR. ROBB:

Q Doctor, I revert to your talk about the report you prepared in May, 1952.

A Yes.

Q I asked you if you talked with Dr. Oppenheimer before you prepared it and you said that you didn't and I accepted that, of course.

A Yes.

Q I find after you left the room in the file a letter which is marked Top Secret, but I want to show it to you. It is addressed by you to Dr. Oppenheimer on May 28, 1952, and apparently attached to a copy of your report to Mr. Dean, dated May 23, 1953.

Just so there be no misunderstanding in the record I want you to look at this and give any comment you may have.

A This seems to say that we did talk about it. As far as I remember, it was merely that I reported to him that I was writing such a document. It was certainly not initiated

2 by him and the contents that should be in it were not discussed with him.

Q And you sent him a copy of the report?

A I did.

MR. ROBB: Mr. Classification Officer, if I get into something here, will you please stop me.

BY MR. ROBB:

Q I notice you refer to a visit to Griggs. Who was Griggs?

A Mr. Griggs was the Chief Scientist to the Air Forces.

Q What was that visit about? You say "yesterday morning I visited Griggs". That was apparently May 27.

A At the time there was much discussion of the past record of Los Alamos and much discussion of the question whether a second laboratory for weapons work should be opened. It seemed to me that some rather false information was current with some people, particularly in the Air Forces and one of the persons whom I knew to be an exponent of this section of Air Force opinion was Dr. Griggs. Therefore, I went to see him to clear up the past Los Alamos record, and also to discuss generally the function of thermo-nuclear weapons in warfare.

Q What was his view on the second laboratory?

A He was very much for it.

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Q You were against it?

A Yes.

Q You say in your letter to Dr. Oppenheimer: "As you know, I visited Griggs yesterday morning." Had you talked to Dr. Oppenheimer about visiting Griggs before you went to see him?

A I obviously had.

Q Do you remember what your conversation with Dr. Oppenheimer was?

A I am afraid I don't but it probably ran somewhat similar to what I just told you: That I wanted to clear up these matters. By the way, Dr. Oppenheimer opposed the second laboratory much less that I did, if at all.

Q I will show you the letter so you will get the context and maybe I can phrase a question that won't be overruled by our friend the security officer.

Dr. I notice you speak of the atmosphere calming down considerably in this matter. What were you talking about there?

A I will try to remember. I am not sure I can.

Q 'If you don't, just tell us you don't and that is the end of it.

A I may have referred to the general controversy of whether atomic weapons work was being pursued -- no, I mean thermo-nuclear work -- was being pursued sufficiently

4 effectively at Los Alamos. This was our main concern at the time. It was believed by Dr. Oppenheimer and myself and by the members of the Atomic Energy Commission that Los Alamos was doing a very good job on thermo-nuclear weapons at that time, and this was born out by the success of the test in November of 1952.

Dr. Teller, I think, was conducting a campaign to establish the contrary. I believe this was the matter I am talking about.

Q I notice in here again referring to your visit to Griggs, which you say took from 10 a.m. to 12:30, you said you were surprised because your conversation with him was quite pleasant?

A Right.

Q What did that refer to, Doctor?

A Dr. Griggs had been very much of an exponent of the view that Los Alamos was not doing its job right and very much an exponent of the view that thermo-nuclear weapons and only the biggest thermo-nuclear weapons should be the main part of the weapons arsenal of the United States. I had very much disagreed with this, with both of these points, and so I expected that we would have really a very unpleasant fight on this matter. We didn't.

Q I see you mention in the first paragraph of your letter "very peaceable and enjoyable dinner with Dr. Oppenheimer" and the talk you had with him. Had you discussed

5 with him at that dinner your forthcoming visit to Griggs. I don't know whether this was discussed at the dinner or otherwise. That was up at Princeton, was it?

A I remember the dinner was here in Washington during the meeting of the American Physical Society. I may be wrong.

MR. BOBB: That is all. Thank you, Doctor.

FURTHER REDIRECT EXAMINATION

BY MR. MARKS:

Q Dr. Bethe, what kind of a second laboratory did Griggs favor?

A Well, he favored a second laboratory to work on weapons and such a laboratory was then established at Livermore very shortly after all these conversations took place, namely, in July of 1952.

This laboratory has been getting all the credit for thermo-nuclear development, which is unjustified.

Q Whatdo you mean by that?

A I mean by that that the majority of the weapons which have been developed and which are being tested now in the Pacific and the most powerful of them were developed exclusively by the Los Alamos Laboratory.

Q Dr. Bethe, you said, as I understood your remarks, that you disagreed with Griggs about the desirability of relying exclusively on thermo-nuclear weapons?

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A I did not say exclusively. Predominantly.

Q Was this because of moral considerations?

A Yes. It was my belief that if and when war ever comes that it is most important not to over-destroy the enemy country, but to fit the weapon in each case to the target and to attempt the best accuracy that one can on bombing so as to make a minimum of destruction compatible with gaining the objective. It was on this that we disagreed.

Q I am afraid I don't understand you. Did you mean atomic weapons could do the job?

A Yes, sir. Supposing you have, for instance, a city which contains two industrial plants which you want to bomb, each of which could be knocked out by a 100 kiloton atomic weapon correctly placed, you could also use a five million to thermo-nuclear weapon to hit them both, which would reduce the problem for the Air Forces because they would have to fly only one plain instead of two.

It seemed to me that both from moral considerations and for the consideration of the state of the enemy country after the war, which we traditionally take care of in some way, it was important to choose the former alternative and not the latter.

MR. MARKS: That is all.

MR. GRAY: Thank you very much, Dr. Bethe.

(witness excused)

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MR. GARRISON: Mr. Chairman, I will ask Dr. Fisk to come in.

In the division of labor, I will ask my partner, Mr. Silverman, to put the questions to him.

MR. GRAY: May I have your initials?

DR. FISK: James B. Fisk, F-i-s-k.

MR. GRAY: Do you wish to testify under oath?

DR. FISK: Yes.

MR. GRAY: Would you then please stand and raise your right hand?

James B. Fisk, do you swear that the testimony you are to give the Board shall be the truth, the whole truth and nothing but the truth, so help you God?

DR. FISK: I do.

MR. GRAY: Will you sit down, please, sir. I must remind you of the existence of the perjury statutes. I will be glad to describe to you the penalties imposed if you wish, but I assume you are familiar with them.

DR. FISK: I think I am familiar with them.

MR. GRAY: Second, I should ask that if it becomes necessary in the course of your testimony to make any reference to or disclose any restricted data, I would ask that you notify the Board in advance so that we can take appropriate steps if that becomes necessary.

Finally, I should say that we consider the proceedings

and record of this Board as a confidential matter between the Commission and its officials and Dr. Oppenheimer and his representatives and witnesses, and that the Commission will not take the initiative in releasing anything about these proceedings to the press.

We express the hope that will also be the attitude of the witnesses who are appearing.

Mr. Silverman, would you proceed.

Whereupon,

DR. JAMES B. FISK

was called as a witness, and having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. SILVERMAN:

Q What is your present position in private employment?

A I am vice president in charge of research at the Bell Telephone Laboratories.

Q What is your present position with the Atomic Energy Commission?

A Member of the General Advisory Committee.

Q How long have you been a member of the General Advisory Committee?

A I was appointed in the fall of 1952.

Q Will you tell us what previous positions you have

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held with the Atomic Energy Commission?

A From February 1st, 1947 until September, 1948, I was Director of the Division of Research of the Atomic Energy Commission. Subsequent to that I was for a year or perhaps a little longer a consultant to the General Manager.

Q When did you first meet Dr. Oppenheimer?

A The first time I met Dr. Oppenheimer in any other than a very casual way was in January, 1947.

Q That was just before you assumed your position as Director of the Research Division?

A Yes.

Q After that did you work with Dr. Oppenheimer with any degree of closeness?

A During the time I was Director of the Division of research I saw Dr. Oppenheimer on many occasions, usually in connection with the work of the Commission.

Q At that time he was Chairman of the GAC?

A At that time he was Chairman, yes.

Q Did you also serve on committees with Dr. Oppenheimer?

A Subsequently to that time I have been on the Science Advisory Committee in the Office of Defense Mobilization of which he was an initial member, and on various committees, such as visiting committees to Harvard University and things of that sort.

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Q What was the visiting committee to Harvard University?

A Physics Department. In fact, those are the only two that I should cite.

Q You mean the Science Advisory Committee and the visiting committee to Harvard?

A Yes.

Q What is the period of your joint service on the Science Advisory Committee as far as you can recall?

A I should say the overlap was a matter of something under a year. Approximately a year, I would say.

Q When was that?

A Quite recently.

Q Do you recall about the time that you assumed your position as Director of the Division of Research in the early part of 1947 there was discussion about what to do about Los Alamos?

A This was, I believe, the most important problem that I came in contact with at that time in the Commission -- the health and vigor of Los Alamos.

Q Would you tell us something about what the problem was and what was done about it with particular reference to what you know about what Dr. Oppenheimer did?

A I can say a few rather general things here which I think may be of significance. The Commission had just, of

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course, come into existence. Los Alamos at that stage, with all of the rehabilitation of science and scientists following the war, many people going back to their normal pursuits and normal homes, Los Alamos was in a state where there was a real question as to whether or not it could survive. There was a great deal of attention paid to its growth, regaining of strength not only on the part of the Commission itself and the staff, but on the part of the General Advisory Committee. This was a very principal question.

Many of us spent many, many days in Los Alamos with people, attempting to keep the staff together, formulating its program and doing the things that would give it real life and vigor. In all of these activities, the General Advisory Committee was extremely helpful. Dr. Oppenheimer in particular was extremely helpful and thoughtful about the circumstances which could bring the laboratory back to life.

I seems to me, if I may add this, that the health and vigor of Los Alamos today is a very direct result of the activities of those times. I believe it is the strongest laboratory the country has.

Q Did Dr. Oppenheimer play any part in connection with the research work that was done by the AEC?

A The principal activity for which I had a direct responsibility in the Commission, although all of us were doing a great variety of things in those days, was the

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research program. This was something that was inherited in part from the Manhattan District but it was something in another sense that had to be started in some parts anew. There were new national laboratories being formed, such as Brookhaven, such as the new Argonne Laboratory, and the whole problem here was to generate a research program that would keep American science and particularly the science that was relevant to the Commission's activities strong and vigorous.

There were many problems that came up day by day and in many, many cases, as Director of the Research Division, I turned to the General Advisory Committee for assistance and always got very good advice and very strong support for those things that made sense in my judgment.

Q Did Dr. Oppenheimer play a roll in this advice and assistance that you got from the GAC?

A A very prominent roll, both in terms of the formal activities of the General Advisory Committee itself and in terms of many informal contacts where I felt free to call upon him and where I saw him in the Washington offices.

The examples that one could cite are almost too numerous to detail, but all of this added to a feeling for strengthening science in the United States and science in its relevance to the Commission's overall program.

Q Have you formed an opinion as a result of your

13 contact with Dr. Oppenheimer, and your knowledge of Dr. Oppenheimer with respect to his integrity, his loyalty and any other factors that might bear on his being a security risk?

A Yes, I have. I have a very high opinion of all of these factors and I would go on to say that I know of no more devoted citizen in this country.

MR. SILVERMAN: I have no further questions.

CROSS EXAMINATION

BY MR. ROBB:

Q Doctor, is the Bell Laboratory the one that Dr. Kelly is the head of?

A He is the President, yes.

Q Is he the Dr. Kelly that appeared here the other day?

A Yes. He is my senior.

MR. ROBB: Thank you; that is all I care to ask.

MR. GRAY: Thank you very much, Dr. Fisk. We very much appreciate your coming.

(Witness excused)

MR. GARRISON: Mr. Chairman, I would like to ask General Osborn to testify next because I think we can get through with him this afternoon.

MR. GRAY: All right.

May I ask for your initials?

GENERAL OSBORN: Frederick H. Osborn. I usually

14 don't use the initial. Frederick Osborn.

MR. GRAY: Do you wish to testify under oath?

GENERAL OSBORN: Yes, I do, sir.

MR. GRAY: Would you be good enough to stand and raise your right hand?

Frederick Osborn, do you swear that the testimony you are to give the Board will be the truth, the whole truth and nothing but the truth, so help you God?

GENERAL OSBORN: I do.

MR. GRAY: Thank you. Will you be seated, sir?

It is my duty to remind you of the penalties provided by the statutes, that is, the so-called perjury statutes. Unless you wish, I will not recite these penalties. I assume you are familiar with them.

GENERAL OSBORN: Yes.

MR. GRAY: I should also like to ask that if in the course of your testimony it becomes necessary for you to discuss restricted data you will inform the Chairman in advance.

Finally, I should say that we consider these proceedings as a confidential matter between the Atomic Energy Commission and its officials and representatives and Dr. Oppenheimer, his representatives and associates, and that the Commission will not take the initiative in releasing anything publicly about these proceedings. We express the

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hope that this will be the view of the witnesses as well.  
Whereupon,

FREDERICK OSBORN

was called as a witness, and having been duly sworn, was  
examined and testified as follows:

DIRECT EXAMINATION

BY MR. GARRISON:

Q General Osborn, I just want to ask you a few  
questions about your wartime experience and service. You  
were a member and chairman of the President's Advisory  
Committee on Selective Service in 1940, were you not?

A Yes.

Q And chairman of the Joint Army and Navy Committee  
on Welfare and Recreation beginning in March 1941?

A I was appointed by Mr. Stimson to that post.

Q Then you were promoted by General Marshall to  
Brigadier General?

A I was commissioned by General Marshall.

Q As Brigadier General and later you were promoted  
to Major General in 1943?

A That is right.

Q You were Director of the Information and Educational  
Division of the USA, the U.S. Army?

A Yes.

Q And resigned from the Army in 1945?

A That is right.

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Q And then you were appointed Deputy Representative of the United States on the United Nations Atomic Energy Commission, 1947 to 1950?

A That is right.

Q And it was in that connection that you had a close acquaintance and working relationship with Dr. Oppenheimer?

A That is right.

Q I want to just ask you a few questions about that experience of yours and I would like to ask you rapidly a few questions that will bring us to the historical point about which you are to testify.

The Baruch plan had been presented to the United Nations Atomic Energy Commission in the fall of 1946, is that right?

A That is right.

Q The plan was approved in December, 1946, by every one but the Russians and their satellites?

A There may have been some small nations in abstention -- I forget -- but it was approved in effect by all the nations except the Russians and their satellites.

Q And after that, the Commission adjourned?

A That is right.

Q And Mr. Baruch shortly afterwards resigned his position as the United States representative on the Commission?

A Yes.

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Q And then during the winter the resignation was not filled?

A For the first two months it was not filled.

Q And you were asked by General Marshall to take on the job of Deputy United States Representative on the Commission, succeeding Mr. Baruch?

A That is right.

Q That was in February, 1947?

A He told me he had a job for me and would I take a job, was I free to take a job on February 22, and I said I always would take a job, whatever he asked me to do. Then he sent for me to come to Washington on the 28 of February and told me what the job was. I was sworn in on Friday --

Q March 7?

A Yes, March 7, Friday, a week later. All Fridays.

Q And at about that time on that day or shortly thereafter, did Dr. Oppenheimer get in touch with you at Acting Secretary Acheson's request?

A I had come down on Friday, March 7. I remember these dates because Washington's birthday was when we gave an honorary degree to General Marshall at Princeton, which was the 22nd. I came down the following Friday. I came down to be sworn in on Friday March 7.

While I was in Dean Acheson's office, or waiting outside -- I was back and forth from Dean Acheson's office;

18 he was then Assistant or something or other Secretary of State to General Marshall, tiding over -- Dr. Oppenheimer called me from San Francisco. I had not known Dr. Oppenheimer before. I had simply known his name and knew who he was. He said that he wanted to see me.

Shall I go on?

Q Yes.

A I said " I am new to this job; I know nothing about it. Would it be better if we waited a couple of weeks until I was acquainted with the job."

He said, "No, I want to see you right now. Will you be in Washington or New York tomorrow?"

I said, "Yes, of course, I will see you if you want to come on, but it is a long trip to take."

He said, "I would like to see you."

We made a date to meet at the offices of the Atomic Energy Commission in New York the next day, Saturday. I went back to New York. Dr. Oppenheimer flew in from the Coast and arrived early Saturday morning and met me at half past eleven. I had a car and drove him to my country place up at Garrison across from West Point because I was spending the week-end there. He spent Saturday and Sunday with me. We drove back at three o'clock on Sunday because I was going to meet with Baruch.

Q Did he get in touch with you at Acheson's request?

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A No. He knew from Acheson I had been appointed. It was on his initiative, I am pretty clear, that he wanted to see me.

What he wanted to see me about is this. The general tenor I remember quite clearly. I don't remember the exact words. I remember the general tenor clearly because it was very interesting.

Q What was the key question facing the United States Representative at that time? In fact, what was the key question facing the Commission?

A I know now what the question was. I am not sure that I knew then because I was just getting started. The key question was whether the negotiations should be continued.

Q With the Russians?

A With the Russians in the United Nations, the Russians having turned down the Baruch plan. They had not vetoed it; they had abstained, but not agreed to it.

The Baruch plan was very general in its statement. It was not a detailed plan. They had turned down the general principles of the plan. The question was: Should the United States agree to continue the negotiations in the United Nations.

Dr. Oppenheimer came on to tell me that there were two very serious dangers in continuing negotiations. The general background was they he was now certain after watching

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the Russians for three or four months that the Russians had no intention of accepting any plan for the control of atomic energy -- international control of atomic energy -- which would mean lifting the Iron Curtain. He had come to the conclusion that their behavior showed that they were not going to lift the Iron Curtain, and that this would be the end of the regime.

Yet he felt certain that if the Iron Curtain was not lifted that any plan of international control would be exceedingly dangerous to the United States. What he was afraid of was that if we continued these negotiations we would make some compromises which without our fully realizing it would put us in the position of having accepted an agreement for the control of atomic energy, possibly with prohibition of bombs, without in reality the Russians having lifted the Iron Curtain.

There would be some system where we would accept compromises which would put the United States in a very dangerous position of not really knowing what was going on in Russia, whereas the Russians would know all about what was going on here.

This was the first danger he foresaw, and he talked about this. This was the purpose of his trip. He also felt that this continuation of negotiations was something that the Russians would be glad to use the United Nations as a

21 medium for propoganda and this propoganda they could use against us, and it would be just as effective as any propoganda we would get by insisting on the Baruch Plan.

So he was for discontinuing the negotiations.

Q Then you consulted representatives of the French —

A I went back to New York and I saw McNaughton, the Canadian Representative, a very able man, and Duggan, the British Representative, and Parodi, the head of the French Delegation.

Q What was their attitude?

A They all felt very strongly that the negotiations should continue. They said they really had not a good look at the Baruch plan, they had not taken much part in drawing it, they did not know what it would look like if it was put in more detailed form. They said they would be in an impossible position in their own countries if they agreed to calling off the negotiations.

Senator Austin told me that he had been called to Washington to attend a meeting of the President's Executive Committee on the Regulation of Armaments, which was commonly called RAC, composed of Paterson, Forrestal, Lillenthal, Acheson, possibly Lovett. I think Lovett was not present at that meeting. I know he was not present at the meeting and I am not sure whether he was still Secretary for Air. I guess he wasn't. Anyway, it was composed of Paterson,

Forrestal, Lienthal and Acheson.

I asked Austin if I could go to this meeting with him in Washington. He said, yes, he would take me along. Austin felt very strongly that we should continue negotiations. He came to this meeting and he said that we should continue negotiations; that he felt we would be able to reach agreement with the Russians; that they were very friendly -- he called Gromyko by his first name -- and he thought we would get somewhere and we could make some compromises which would enable us to reach agreement on control.

Forrestal said, "This is a lot of bunk", and so did Paterson.

Q How about Acheson?

A Acheson didn't take any part.

MR. ROBB: This is a lot of what?

THE WITNESS: A lot of bunk. Forrestal was perfectly outspoken and so for that matter was Paterson about the Russians being friendly and compromising. He said we should not go on with the negotiations.

I asked if I might speak. I said I agreed with Austin that we should continue the negotiations for quite different reasons. I felt that the Russians had no intention seriously and they would not agree to any form of control that we could accept, but that I had talked to England and France and Canada and these men were very insistent that we continue

23 negotiations.

I thought if we were properly on our guard we need not make any bad mistakes or endanger the situation, and it would be very injurious to our international position to take a lone position, refusing to negotiate.

Forrestal said that makes sense to me; what do you think, Bob? Paterson said, "I think we should go ahead if this is the reason and if we do it without eyes open?"

Acheson said he was opposed to our going ahead. Lilienthal said that he agreed. Acheson said, "If you feel this way, it is all right for me to go ahead."

So the next time I saw Dr. Oppenheimer -- I forget when it was, fairly soon -- I told him I had a part in this decision to go ahead, notwithstanding his advice. I told him the reasons. He said, "Well, I had information which he had not taken into account; that he had not talked to any of the representatives of the other countries, naturally."

He said, "I was the boss of this situation and if this was the decision, this was the decision. He would go along with it and I could count on him for any help I felt he could give us."

I then asked Dean Acheson if I might appoint a committee of consultants. I think it was on quite an informal basis; simply consultants who would meet with me in New York when I felt I needed their advice. On that committee

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I asked to serve Dr. Oppenheimer, Kim Conant, General Groves, Bacher, Dr. Tolman, who died a year later, and I think Lincoln Gordon.

BY MR. GARRISON:

Q Chester Barnett?

A Yes.

Q And General Farrell?

A Yes. And Lincoln Gordon was on it. He had been on Baruch's staff. He was a Professor at Yale or Harvard, and I think he was on it for a while.

This committee was wonderful and also the attention and interest they gave it. Oppenheimer and Conant said that any time we needed them they would drop anything they were doing and would come on for consultation.

When we were coming close to a decision as to what detailed agreement we would reach in regard to the Baruch Plan, because this is what we were working on, I always consulted this committee. While I don't remember particular things that were said at committee meetings, Dr. Oppenheimer's position consistently through the first year when we were redrafting the Baruch Plan was that we must be very careful not to give up anything. If we lost the proposal in the Baruch Plan which had already been too much weakened -- the original proposal of the Acheson-Lilienthal plan that there must be international ownership and management of these

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plans -- if we lost this, we would begin to get in an increasingly weakened position and he would be very scared of it.

So I think we strengthened the position that had already been weakened. It had already gone to the question of whether there should be inspection being left a little indefinite. I think we strengthened it under Dr. Oppenheimer's urging and that of other members of the committee.

Q By the summer of 1949, or in the summer of 1949, did Dr. Oppenheimer make any comments in your consultant's committee which you have just been describing about the state of affairs in relation to the Baruch Plan and the Russians?

A By the summer of 1948 we went to the General Assembly in Paris with quite a well completed detailed outline of the Baruch Plan -- still called the Baruch Plan, if you want, but it was the United Nations' Plan by this time -- and under instructions of General Marshall -- very specific and written -- that we would try to call off the negotiations and if we could not call them off entirely, that they should be put in the hands of the six sponsoring powers so it would not any longer be done in public and these ridiculous meetings which the Russians were using wholly for propaganda by this time would not be held.

We were successful to have the negotiations

transferred to the so-called six sponsoring powers who originally sponsored the setting up of a commission.

During 1949 we held occasional meetings of the sponsoring powers. I had my committee and the individual members of it in from time to time.

The only thing that I remember about this year, which was very indecisive -- nothing much happened -- was that Dr. Oppenheimer by this time said that we had made so much atomic material that it would no longer be safe to distribute it under the Baruch Plan. It would put too much atomic material in countries other than the United States.

He felt very strongly that this thing, even the Baruch Plan, was no longer safe, because the Baruch Plan was made for immediate acceptance at the time when there was almost no atomic material around. By 1949 we had a good deal of it.

This I remember very distinctly and would be born out by the records of my consulting committee, I am sure.

Q From these contacts with Dr. Oppenheimer during these two years, three years actually, did you form an impression of his character and his quality as an American citizen?

A I formed the impression of a man most consistent and determined in his desire to protect the United States against what he considered a very dangerous situation, a

great number of dangers in these negotiations, and willing to take infinite pains to see that we didn't fall into any of these traps.

Hence, I considered him a man of real patriotism and very consistent character and great loyalty because, after all, the very first thing I did, knowing nothing about this situation -- when two weeks after he had taken the trouble to fly out from California -- I had gone against his advice without telling him what I was doing. This made no difference. He just stuck at what he considered his job of seeing that we didn't fall into any pitfalls on this thing.

Q By going against his advice, you have reference to you testimony that after consulting with the British, French and Canadians, you favored continuing negotiations with the Russians?

A Yes. He remained intensely loyal. It has always struck me. I have been in a good many jobs, and this is not always the case when you cross a man at the beginning.

MR. GARRISON: THAT IS ALL.

CROSS EXAMINATION

BY MR. ROBB:

Q General, that was before the Russians exploded their A-Bomb, was it?

A Yes; all of this was before. I think they didn't explode their A-Bomb until 1950.

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Q Yes.

MR. GARRISON: 1949.

MR. ROBB: 1949; I beg your pardon.

THE WITNESS: Was it December of 1949?

MR. GARRISON: September.

MR. ROBB: September.

THE WITNESS: I don't remember any activity on the part of the consulting powers after that time. We had really stopped meeting. I was on part time, then. I resigned in December or the first of January, effective January 31, 1950.

#### REDIRECT EXAMINATION

BY MR. GARRISON:

Q When you said in the summer of 1949, Dr. Oppenheimer reported to your group that he felt that the stocks of atomic materials had grown so much that it would be dangerous to have a distribution under the Baruch Plan, that was before the Russian explosion.

A I think this must have been in the spring of 1949. Well before. I am sure it was before September. It must have been in the spring because that is when we were still having consultations with the so-called sponsoring powers and this was the information I wanted to get, should we go on or should we pull out.

Q Do you remember a talk which Dr. Oppenheimer gave

29 to the United Nations Committee in 1947? You don't have any recollection of that?

A I remember his appearing. I am trying to think when that was. I remember that we asked him -- one of the things that McNaughton of Canada wanted to do was to get Dr. Oppenheimer to appear, but I forget just what period it was in our negotiations. I think we had several scientists speak to the Commission to inform them about the situation. I don't remember what he said, I am sorry.

MR. GRAY: Dr. Evans, do you have any questions?

DR. EVANS: No.

MR. GRAY: Thank you very much, General Osborn. We appreciate your appearance.

THE WITNESS: Thank you sir.

(Witness excused)

MR. GARRISON: Mr. Chairman, might I take one minute on the record. I would like to renew my request that copies of the transcript be given to us daily. I made arrangements with the reporter for two copies from now on.

MR. ROLANDER: That is correct.

MR. GARRISON: The point I would like to make is this. It is very, very difficult for us to work on these transcripts in the ante room outside. I spent the Easter week-end in there, and it is not easy for us to work outside of our offices on these things, as you can well understand.

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I really don't know what this problem about classification is, but it does seem to me that we should be in the position every day to have transcripts and to have them so counsel might take them out of the building and work on them, because it is very, very difficult for us here.

MR. ROLANDER: May I say that I and the Classification Officer also worked this weekend to try to get these transcripts reviewed. I think we are in a position to give you volumes one and three tonight. Some of the other volumes are creating some problems. We find we may, in order to eliminate any need for a classification stamp, have to scissor or remove a sentence or two or a paragraph or two, of course with the knowledge of counsel. I think this might aid us in getting the review completed more quickly.

MR. GARRISON: I would rather take something that had some scissor holes in it if I could take it out of the building assuming I could know what the scissor holes consisted of.

MR. ROLANDER: Our problem is that so many other agencies have been mentioned in this proceeding. Although everyone has attempted to refrain from discussing restricted data, information having interest to other agencies and a programmatic interest, has come up in the record which we feel is necessary to examine quite carefully.

We will attempt to scissor these transcripts and

31 see if we can't move them a little more quickly. But as of tonight I think we can only assure you volumes one and three and by working tonight perhaps tomorrow we can assure you other transcripts.

MR. GARRISON: I am sure you have been working hard on it. Aren't these references to other agencies chiefly in Dr. Oppenheimer's direct testimony?

MR. ROLANDER: Of course, General Groves' testimony, Mr. Dean's testimony this morning also had certain items. I don't have the transcript in front of me, Mr. Garrison. We have, of course, provided a man here so that you can work at any hour that you want to. You are aware of that, of course.

MR. GARRISON: Yes. I appreciated Mr. Williams' being here all day yesterday. I brought him lunch in a bag.

MR. ROBB: I might say that I have felt the same difficulty because I have to come down to the safe to look at anything. I can't take anything home with me. Frankly, I have not had time to read the transcript.

MR. GARRISON: May we take out of the building the Pash and Lansdale interviews? They are marked unrestricted.

MR. ROBB: It is all right with me.

MR. ROLANDER: It is not a part of the record yet.

MR. ROBB: I see no objection.

MR. GARRISON: We were going to try to agree on

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that. It is kind of late now. Do you think we should do it this afternoon? That is, on the recording.

MR. ROBB: Yes, I understand.

MR. GARRISON: I feel kind of weary.

MR. ROBB: I do, too.

MR. ROLANDER: May I say one other thing about the transcript. We will place on top of the transcript a list of obvious errors. We, of course, have not tried to correct a misspelling unless it is an error of substance. If you see any errors in addition to the ones we have noted, you can tell us.

MR. GARRISON: I assume, Mr. Chairman, if counsel can give the Board a stipulation of correction of obvious errors in the record, it won't be necessary to take the time of the Board during the proceedings.

MR. GRAY: The Board would be glad to receive it in that manner.

MR. ROBB: I might say that I think on the whole the reporter has been doing a splendid piece of work.

MR. GARRISON: I join in that.

MR. GRAY: If there is nothing further at this time, we will recess until 9:30 in the morning.

(Whereupon, at 5:15 p.m. a recess was taken, to reconvene at 9:30 a.m., Tuesday, April 20, 1954.)